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 Test-Durchführung / -Performance

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 Datum / Date

-----  
 Unterschrift / Signature

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 Bemerkungen / Comments

Probe / Sample				
1	2	3	4	5
<i>Thermocycler 1</i>	<i>Thermocycler 2</i>	<i>Thermocycler 3</i>	<i>Thermocycler 4</i>	<i>Thermocycler 5</i>

Methodenablauf und Pipettierolumina der Einzelkomponenten für ein PCR-Reaktionsgefäß sind in allen **HLA-READY GENE** Kits gleich /  
 Test procedure and pipetting volumina for one well are the same in all **HLA-READY GENE** kits

**1.) Mastermix (MM) ansetzen, gut mischen / Pipette mastermix (MM), mix well**

	Volume per well [ µl ]	Multipliziert mit der Anzahl an Bestimmungen / multiplied by the number of typings	Endvolumen [ µl ]
Destilled Water	6	X	=
ReadyPCR	3	X	=
Taq-Polymerase (5U/µl)	0.08	X	=
Endvolumen MM	9.08	X	=

\* 8 wells extra volume

Bei Mitführen einer **Negativkontrolle** (NK) 10 µl MM in das NK-Reaktionsgefäß (Tube Nr. 1) übertragen /  
 When testing a **Negative Control** (NC) pipette 10 µl of MM into a NC reaction tube (tube no. 1)

**2.) Aliquote 926 µl MM in 1,5 ml Tubes (je nach Anzahl der Bestimmungen / dependent on number of typings)**

**3.) Proben DNA zugeben, gut mischen / Add sample DNA, mix well**

	Volume per well [ µl ]	Multipliziert mit der Anzahl an Bestimmungen / multiplied by the number of typings	Endvolumen [ µl ]
Mastermix (MM)	9.08	X	926
DNA (25-100 ng/µl)	1	X	102
Endvolumen MM-DNA	10.08	X	1028

\* 7 wells extra volume

**4.) 10 µl MM-DNA pro Well (95x) in blaue PCR-Platte verteilen / Dispense 10 µl MM-DNA per well (95x) in blue PCR plate**

**5.) RG mit Deckelstreifen dicht schließen und in Thermocycler übertragen /  
 Close wells tightly with tube caps and place the block into thermocycler**

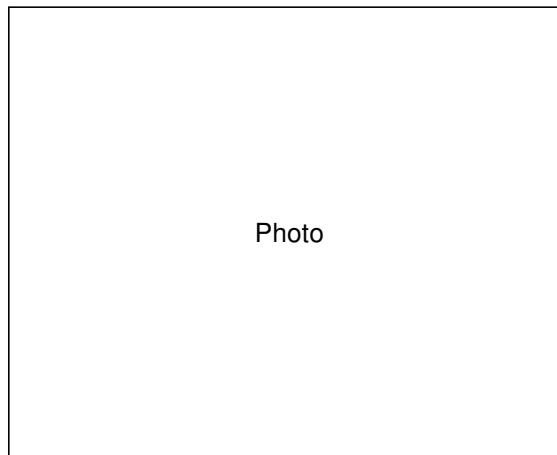
**6.) PCR im Thermocycler starten (Programm für alle HLA-READY GENE Testkits gleich, s. Gebrauchsinformation) /  
 Start PCR in thermocycler (same Program for all HLA-READY GENE kits, see user manual)**

**LOT**    **G953085**

Name / Name	Vorname / First name	Geburtsdatum / Date of birth
Proben-Nr. / Sample I.D.	Herkunft / Origin	Diagnose / Diagnosis
Test-Durchführung / -Performance	Datum / Date	Unterschrift / Signature
Test-Überprüfung / -Review	Datum / Date	Unterschrift / Signature

Bemerkungen / Comments

<b>HLA-A</b>
<b>HLA-B</b>
<b>HLA-C</b>
<b>Ergebnis / Result</b>



- Mix # 2:** gelegentlich schwache spezifische Bande / occasionally weak specific band
- Mix # 5:** kreuzreaktiv mit / crossreactive to Cw\*0414
- Mix # 12 (multiplex):** 225 bp: A\*0234,35,56,62,\*0301-07,09-11N,13,14; 170 bp: A\*2501-04,\*2601-03,05,07,08,10-23,\*4301,\*6601,04
- Mix # 13 (multiplex):** 200 bp: A\*1111,\*4301; 170 bp: A\*6602,03
- Mix # 24 (multiplex):** 155 bp: A\*8001; 70/ 75 bp: A\*0255,\*2603,05,06,\*6805,15,20
  
- Mix # 28:** gelegentlich schwache spezifische Bande und unspezifische Bande (> spez. Bande) / occasionally weak specific band and unspecific band (> specific band)
- Mix # 36:** gelegentlich schwache spezifische Bande und kreuzreaktiv mit / occasionally weak specific band and crossreactive to Cw\*0314,\*0510,\*0710,\*1504,05,09
- Mix # 37 (multiplex):** 395 bp: B\*1516,17,67; 190 bp: B\*1512,14,19,\*3545,\*4417,\*5807;  
 gelegentlich Primerdimerbande (< spez. Bande) / occasionally primer dimer band (< specific band)
- Mix # 46:** gelegentlich schwache spezifische Bande / occasionally weak specific band
- Mix # 68:** gelegentlich unspezifische Bande (> spez. Bande) / occasionally unspecific band (> specific band)
- Mix # 69:** gelegentlich schwache spezifische Bande und Primerdimerbande (< spez. Bande) / occasionally weak specific band and primer dimer band (< specific band)
  
- Mix # 75:** gelegentlich Primerdimerbande (< spez. Bande) / occasionally primer dimer band (< specific band)
- Mix # 77:** gelegentlich schwache spezifische Bande und unspezifische Bande (> spezifische Bande) / occasionally weak specific band and unspecific band (> specific band)
- Mix # 79:** gelegentlich schwache spezifische Bande / occasionally weak specific band
- Mix # 84:** kreuzreaktiv mit B\*1818,\*3548,\*5307 und gelegentlich Hintergrund / crossreactive to B\*1818,\*3548,\*5307 and occasionally background
- Mix # 86:** kreuzreaktiv mit / crossreactive to B\*4052,\*5805
- Mix # 96:** gelegentlich schwach kreuzreaktiv mit / occasionally weak crossreactive to A\*2419,44



	H	G	F	E	D	C	B	A
HLA-A*	1	2*	3	4	5*	6	7	8
	Negative Control 430 bp NC	01.. 800 bp IC 80 bp	02.. 800 bp IC 135 bp	03.. / 3204 / 3602 800 bp IC 230 bp	0112 / 11.. / 2419,44 / 2504 / 2608 800 bp IC 480 bp	0217 / 2301,03-12 / 2413,18,24 / 2907 800 bp IC 210 bp	24.. 800 bp IC 210 bp	23.. / 24.. / 3108 / 3205 800 bp IC 95 bp
2	9	10	11	12*	13*	14	15	16
	1110 / 25.. / 26.. / 34.. / 66.. / 68.. / 69.. 800 bp IC 200 bp	25.. 1070 bp IC 475 bp	26.. 800 bp IC 75 bp	0113 / 0234,.... / 03.. 25.. / 26.. / 4301 / 6601,04 800 bp IC 225 bp 170 bp	1111 / 4301 6602,03 800 bp IC 200 bp 170 bp	0113 / 11.. / 2419 / 2502 / 2613,19 / 34.. / 6601,04 800 bp IC 95 bp	29.. 800 bp IC 200 bp	30.. 800 bp IC 90 bp
3	17	18	19	20	21	22	23	24*
	31.. 800 bp IC 180 bp	2503 / 32.. 800 bp IC 260 bp	33.. 1070 bp IC 200 bp	74.. 800 bp IC 155 bp	0210,.... / 1116 / 68.. 800 bp IC 140 bp	0255 / 2622 / 69.. 800 bp IC 375 bp	01.. / 36.. 800 bp IC 170 bp	80.. 0255 / 2603,05,.... / 6805,15,20 800 bp IC 155 bp 70,75 bp
HLA-B*	25	26	27	28*	29	30	31	32
	1070 bp	07.. 3707 / 4015,.... / 4805,08 800 bp IC 115 bp	0729 / 08.. / 3912 800 bp IC 205 bp	13.. / 1536,89 / 4408 800 bp IC 140 bp	14.. 800 bp IC 260 bp	1401 / 2712,16 / 3801,.... / 3901,03,.... 800 bp IC 215 bp	1402,.... / 3526 / 3805 / 3904 800 bp IC 185 bp	1309 / 1501-02,04-... / 3546 / 4021 / 4601,.... 800 bp IC 130 bp
4	33	34	35	36*	37*	38	39	40
	1503,09,10,18,23,.... / 4012 800 bp IC 330 bp	1509,10,18,21,23,37,.... 1070 bp IC 400 bp	... / 0804,17 / 1503,.... ... / 3902,08,.... / 48.. 800 bp IC 105 bp	1502,.... / 35.. / ... / 53,.... / 57.. / 58.. 800 bp IC 100 bp	1516,17,67 1512,14,19 / 3545 / 4417 / 5807 800 bp IC 395 bp 190 bp	1513,16,17,23,.... 800 bp IC 435 bp	350202 / 18.. 800 bp IC 130 bp	27... 800 bp IC 155 bp
5	41	42	43	44	45	46*	47	48
	... / 35,.... / 4406 / ... / 51.. / 53.. / 78.. 800 bp IC 390 bp	18... / 35... / 3919 / 5606 / 78... 800 bp IC 130 bp	40.. / 41.. / 4418 / 45.. / 49.. / 50.. 1070 bp IC 315 bp	37.. / 5303 800 bp IC 130 bp	1548,69 / 38.. / 39.. / 4429 / 67.. 800 bp IC 210 bp	38.. 800 bp IC 110 bp	14.. / 38.. / 3901,03,.... 800 bp IC 400 bp	07.. / 08.. / 14.. / 39.. / 40.. / 41.. / 42.. / 45.. / 48.. / 50.. / 67.. / 73.. / 800 bp IC 425 bp
6	49	50	51	52	53	54	55	56
	4001,07,.... / 4431 / 4801(w),03,.... / 8101-02 (w) 800 bp IC 165	4002,.... 800 bp IC 125 bp	08.. / 37.. / 41.. / 42.. / 44.. / 83.. 800 bp IC 180 bp	07 / 27 / 42,46, / 54 / 55 / 56 / 67 / 73 / 81,.... 1070 bp IC 320 bp	3545 / 44.. / 5707 / 83 800 bp IC 255 bp	4415, / 45.. / 5002 / 5123 800 bp IC 250 bp	46.. 800 bp IC 125 bp	47.. 800 bp IC 230
7	57	58	59	60	61	62	63	64
	2724 / 4031,45 / 48.. / 81... 800 bp IC 175 bp	4013,19 / 4418,25 / 4901 800 bp IC 140 bp	.. / 49.. / 50.. / 51.. / 52.. / 55.. / ... / 78 800 bp IC 205 bp	2702,.... / 51.. / 52.. / 53.. / 57.. / 58.. 800 bp IC 430 bp	.. / 40.. / 41.. / 4409 / 45.. / 4702,.... / 50.. 1070 bp IC 130 bp	13.. / 15.. / ... / 40.. / 41.. / 44.. / 45.. / 47.. / 49.. / 50.. / 52.. 800 bp IC 200 bp	150104 / 54.. 800 bp IC 215 bp	... / 54.. / 55.. / 59.. 800 bp IC 235 bp
8	65	66	67	68*	69*	70	71	72
	... / 45.. / 49.. / 50.. / 56.. / 82.. 800 bp IC 175 bp	1516,17,67 / 57... 800 bp IC 95 bp	58... 800 bp IC 110 bp	... / 4406 / 51.. / ... / 53.. / 59 800 bp IC 85 bp	0710 / 1521,.... / 3526 5122 / 7301 / 7803 800 bp IC 145 bp	4410 w / 82.. 1070 bp IC 245 bp	Bw4 800 bp IC 355 bp	Bw6 800 bp IC 355 bp
Cw*	73	74	75*	76	77*	78	79*	80
	1070 bp	01.. 800 bp IC 240 bp	02.. / 1511 800 bp IC 210 bp	0302,14,15 800 bp IC 205 bp	02.. / 0302,04,.... / 0403,06 / ... / 1502,.... 800 bp IC 240 bp	0303,04,.... 800 bp IC 210 bp	0303,11,.... / 1512 800 bp IC 285 bp	04.. / 1210 / 140203,03 800 bp IC 440 bp
9	81	82	83	84*	85	86*	87	88
	05.. / 08.. 800 bp IC 130 bp	06.. / 18.. 1070 bp IC 125 bp	05.. / 0605 / 0810 800 bp IC 160 bp	0702,03,.... 800 bp IC 215 bp	0501,03-08,11 / 0704,11,12 / 08.. 800 bp IC 280 bp	0314 / 07.. / 1214 / B*5805 800 bp IC 130 bp	08.. 800 bp IC 160 bp	1202,08,10 800 bp IC 155 bp
10	89	90	91	92	93	94	95	96*
	120301,.... 800 bp IC 95 bp	0104,09 / 0205,06.. / 1203,.... / 1604 800 bp IC 215 bp	0704,11,12 1070 bp IC 125 bp	0411 / 14.. 800 bp IC 255 bp	1208 / 15.. 800 bp IC 105 bp	16.. 800 bp IC 215 bp	17.. 800 bp IC 180 bp	04.. / 0708 / 18.. / A*2419 800 bp IC 310

<sup>1</sup> einige seltenere Allele ausgenommen (vollständige Liste: Interpretation -/Specificity Table) / some rare alleles excluded (complete list: Interpretation -/Specificity Table)

**Fettdruck:** Allel(gruppen) mit Häufigkeiten von mind. 0,001 / **Bold letters:** parts of allele groups or alleles with min. frequency of 0,001 (Ref.: www.allelefrequencies.net)

**IC:** PCR Produkte der internen Kontrollprimermixe / PCR products of the internal control primer mixes

# HLA-READY GENE ABC Low

SSP HLA-A, B, C low resolution

## Spezifitätstabelle / Specificity Table HLA- A

IN VITRO DIAGNOSTICUM



LOT

G953085



2006-12

Allele list based on release 2.9.0 (Apr 2005) of the IMGT/HLA Sequence Database

Tube No.		Amplified HLA-A* alleles	Size of PCR Product [bp]	Size of IC [bp]	5' primer(s) <sup>1</sup>	3' primer(s) <sup>1</sup>
1	1H	<b>Negative Control</b>	430	-		
2 <sup>2</sup>	1G	<b>0101-09,11N,13</b>	80	800	527 TGC	570 CCG
3	1F	<b>020101-020108,0110,0111,0202-41,43N-47,49,51-54,56-60,62-78</b>	135	800	144 GCA	240 GGA
4	1E	<b>0301-04,07-09,11N-16 / 3204 / 3602</b>	230	800	363 ATA	555 CCA
5 <sup>3</sup>	1D	0112 / <b>1101-07,09-11,13-17,19-22 / 2419,44 / 2504 / 2608</b>	480	800	341 GGA	538 CTG
6	1C	0217 / <b>2301,03-12 / 2413,18,24 / 2907</b>	210	800	368 GTT	538 CAA
7	1B	<b>2402-05,07-11N,17,19-21,23,25-50</b>	210	800	368 GTT	539 TCT
8	1A	<b>2301-08N,10-12 / 2402-03,05-07,09N-18,20-23,25-27,30,32-41,43,45N-51 / 3108 / 3205</b>	95	800	265 CAG	317 GGA
9	2H	1110 / <b>2501,02,04 / 2601-06,08-15,17,18,21-24 / 3401-06 / 6601-04 / 6801-09,11N,12,15-28 / 6901</b>	200	800	98 CTA	259 GTT
10	2G	<b>2501-04</b>	475	<b>1070</b>	317 GCT	517 CGT
11	2F	<b>2601,02,04,07-18,20,22-24</b>	75	800	261 AAC, 257 CGG	299 TCG
12	2E	0113 / 0234,35,56,62 / <b>0301-07,09-11N,13-16</b> <b>2501-04 / 2601-03,05,07,08,10-24 / 4301 / 6601,04</b>	225 170	800	98 CTT, 423 GCT	282 GAC, 559 CCG
13	2D	1111 / <b>4301</b> <b>6602,03</b>	200 170	800	98 CTA, 423 GCT	257 GCA, 559 CTC
14	2C	0113 / <b>1101-11,13-16,20-23 / 2419 / 2502 / 2613,19 / 3401-06 / 6601,04</b>	95	800	282 CAG	341 CGT
15	2B	<b>2901-13</b>	200	800	98 CAC	257 GCA
16	2A	<b>3001-15</b>	90	800	363 ATA	411 TCA
17	3H	<b>3101-07,09-12</b>	180	800	97 TCA	238 CCT
18	3G	2503 / <b>3201-06,08,09</b>	260	800	98 CTT	317 GGA
19	3F	<b>3301-07</b>	200	<b>1070</b>	98 CAC	259 GTT
20	3E	<b>7401-09</b>	155	800	180 TTT	299 CCA, 299 CCA
21	3D	0210,50,52,73 / 1116 / <b>6801-11N,13-28</b>	140	800	391 ACG, 391 ACG	497 TGG
22	3C	0255 / 2622 / <b>6901</b>	375	800	261 AAC	355 GAC
23	3B	<b>0101-06,08-13 / 3601-04</b>	170	800	203 GAA	341 CGT
24	3A	<b>8001</b> 0255 / 2603,05,06,21 / 6805,15,20	155 70, 75	800	176 GCA 261 AAC	292 GTT 292 GTG, 299 TCT

**Fettdruck:** Allel(gruppen) mit Häufigkeiten von mind. 0,001 / **Bold letters:** parts of allele groups or alleles with min. frequency of 0,001 (Ref.: www.allelefreqencies.net)

**IC:** PCR Produkte der internen Kontrollprimermixe / PCR products of the internal control primer mixes

<sup>1</sup> Nukleotidposition und Codon der 3' Primerenden / nucleotide position and codon of primers 3' ends

<sup>2</sup> **Mix # 2:** gelegentlich schwache spezifische Bande / occasionally weak specific band

<sup>3</sup> **Mix # 5:** kreuzreaktiv mit Cw\*0414 / crossreactive to Cw\*0414



Tube 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	Ser. Type	
	1H	1G	1F	1E	1D	1C	1B	1A	2H	2G	2F	2E	2D	2C	2B	2A	3H	3G	3F	3E	3D	3C	3B	3A		
Size of PCR Product [bp]	-	80	135	230	480	210	210	95	200	475	75	225 170	200 170	95	200	90	180	260	200	155	140	375	170	155 75		
<b>A Allele Specificity</b>																										
Negative Control	1																									-
A*0101-06,08,09,11N		2																						23		A1, -, (Null)
A*0107		2																								A1
A*0112					5																			23		-
A*0113		2										12L		14										23		-
A*0201-09,11-16,18-33,36-41,43-47,49,51,53N,54,57-60,63-72,74-78			3																							A2, -, A203, (Null)
A*020109,42,48,61																										-
A*0210,52,73			3																				21			A210, -
A*0217			3			6																				A2
A*0234,35,56,62			3									12L														A2, -
A*0250 / 6810,13,14																							21			A2 / -
A*0255																							22		24s	-
A*0301-04,07,09,11N,13-16				4								12L														A3, -, (Null)
A*0305,06,10 / 023502												12L														A3, -
A*0308,12				4																						-
A*1101-07,09,13-15,20-22					5										14											A11, -
A*1108,23															14											-
A*1110					5			9							14											A11
A*1111					5								13L	14												-
A*1112,18																										-
A*1116					5										14								21			-
A*1117,19					5																					-
A*2301,03-08N,10-12 / 2413,18						6		8																		A23(9), -, (Null), -
A*2309 / 2424						6																				-
A*2402,03,05,07,09-11N,17,20,21,23,25-27,30,32-41,43,45N-50							7	8																		A24(9), A9, A2403, (Null), -
A*2404,08,28,29,31,42							7																			A24(9), -
A*2406,14,15,22,51 / 2302 / 3108								8																		A24(9), -, A9 / - / -
A*2419					5		7								14											-
A*2444					5		7																			-
A*2501									9	10		12s														A25(10)
A*2502									9	10		12s		14												A10
A*2503										10		12s							18							-
A*2504					5				9	10		12s														-
A*2601,02,10-12,14,15,17,18,23,24									9		11	12s														A26(10), A10, (Null), -
A*2603,05,21									9			12s												24s		A26(10)
A*2604,09									9		11															A26(10), -
A*2606									9															24s		A26(10)
A*2607,16,20											11	12s														A26(10), -
A*2608					5				9		11	12s														A26(10), -
A*2613									9		11	12s		14												-
A*2619												12s		14												-
A*2622									9		11	12s											22			-
A*2901-06,08N,09-13																15										A29(19), (Null), -
A*2907																15										-
A*3001-15																	16									A30(19), -
A*3101-07,09-12																										A31(19), -
A*3201-03,06,08,09																										A32(19), -
A*3204				4																						-
A*3205								8																		-
A*3207																										-
A*3301-07																										A33(19), -
A*3401-06									9						14											A34(10), -
A*3601,03,04 / 0110																								23		A36, -
A*3602				4																				23		-
A*4301												12s13L														A43
A*6601,04									9			12s		14												A66(10), -
A*6602,03									9				13s													A66(10), A10
A*6801-04,06-09,11N,16-19,21-28									9															21		A68(28), A28, Null, -
A*6805,15,20									9														21		24s	A68(28), -
A*6812									9																	A28
A*6901									9															22		A69(28)
A*7401-09																										A74(19), -
A*7410																										-
A*8001																									24L	A80

gelegentlich schwache Bande / occasionally weak band

**Multiplex Mix !** 12 s L 2 spezifische Banden / 2 specific bands: s(mall) 170 bp, L(arge) 225 bp

**Multiplex Mix !** 13 s L 2 spezifische Banden / 2 specific bands: s(mall) 170 bp, L(arge) 200 bp

**Multiplex Mix !** 24 s L 2 spezifische Banden / 2 specific bands: s(mall) 70/ 75 bp, L(arge) 155 bp

SSP HLA-A, B, C low resolution

**Frequency Table HLA- A**



**Frequent alleles:**

Allele Specificity	Freq <sup>1</sup>	Ser. Type
<b>A*010101</b>	c*	A1
A*0102	ai	A1
A*0106	ie	-
<b>A*02010101</b>	c*	A2
A*0202	c*	A2
A*0203	o,ie	A203
A*0204	c*	A2
A*0205	c*	A2
A*0206	c*	A2
A*0207	c*	A2
A*0208	a	A2
A*0210	o	A210
A*0211	c*	A2
A*0214	a	A2
A*021701	c*	A2
A*0219	ai	-
A*0222	c*	A2
A*0224	c*	A2
A*0226	c*	-
A*0236	ie	-
<b>A*03010101</b>	c*	A3
A*030102	ie	A3
A*0302	c*	A3
<b>A*110101</b>	c*	A11
A*1102	c*	A11
A*1104	ai	A11
<b>A*2301</b>	c*	A23(9)
<b>A*24020101</b>	c*	A24(9)
A*24020102L	c*	Low A24
A*240301	c*	A2403
A*2404	h	A24(9)
A*2405	ie	A24(9)
A*2406	ie	A24(9)
A*2407	o,ie	A24(9)
A*2408	o,ie	A24(9)
A*2409N	c*	Null
A*2410	o	A9
A*2423	x	A24(9)
A*2424	ie	-

Allele Specificity	Freq <sup>1</sup>	Ser. Type
<b>A*250101</b>	c*	A25(10)
A*2502	c*	A10
<b>A*2601</b>	c*	A26(10)
A*2602	c*	A26(10)
A*2605	c*	A26(10)
A*260701	c*	A26(10)
A*2608	c*	A26(10)
A*2611N	ie	Null
A*2614	ie	-
<b>A*29010101</b>	c*	A29(19)
A*290201	c*	A29(19)
<b>A*3001</b>	c*	A30(19)
A*3002	c*	A30(19)
A*3004	c*	A30(19)
<b>A*310102</b>	c*	A31(19)
A*3108	ie	-
<b>A*3201</b>	c*	A32(19)
A*3202	c*	A32(19)
A*3204	ie	-
<b>A*3301</b>	c*	A33(19)
A*330301	c*	A33(19)
A*3305	c*	A33(19)
<b>A*3401</b>	c*	A34(10)
A*3402	c*	A34(10)
<b>A*3601</b>	c*	A36
<b>A*4301</b>	b	A43
<b>A*6601</b>	c*	A66(10)
A*6602	c*	A66(10)
<b>A*680101</b>	c*	A68(28)
A*680102	c*	A68(28)
A*6802	c*	A68(28)
A*680301	c*	A28
A*6805	m	A68(28)
<b>A*6901</b>	c*	A69(28)
<b>A*7401</b>	o	A74(19)
A*7403	ai	A74(19)
<b>A*8001</b>	c*	A80

<sup>1</sup> allele frequency min. 0,001 (Ref.: www.allelefreqencies.net): a arab, ai amerindian, b black, c\* caucasoid (and other) s hispanic, ie indo-european, m mixed (Mexico Mestizos), o oriental, x Yupik Natives

**HLA-READY GENE ABC Low**  
 SSP HLA-A, B, C low resolution  
**Spezifitätstabelle / Specificity Table HLA- B**

IN VITRO DIAGNOSTICUM



G953085

2006-12

Allele list based on release 2.9.0 (Apr 2005)  
 of the IMGT/HLA Sequence Database

Tube No.	Amplified HLA-B* alleles	Size of PCR Product [bp]	Size of IC [bp]	5' primer(s) <sup>1</sup>	3' primer(s) <sup>1</sup>
25	4H -	-	1070		
26	4G 0702-18,20-24,26-32,34-39 / 3707 / 4015,16,23,32 / 4805,08	115	800	527 TGA	605 GCT
27	4F 0729 / 0801-09,11-16,18-24 / 3912	205	800	97 TCG	259 GTT
28 <sup>2</sup>	4E 1301-08,10-13 / 1536,89 / 4408	140	800	209 GGC	309 GTG
29	4D 1401-04	260	800	361 AGT	583 GTG
30	4C 1401 / 2712,16 / 3801,02,04,08,09,10 / 3901,03,05-07,09,11,14,15,18,19,22,24-30,32,33	215	800	103 CCT	272 TGC
31	4B 1402-06 / 3526 / 3805 / 3904	185	800	103 CCG	246 TAT
32	4A 1309 / 1501-02,04-08,11,12,14,15,19-21,25-28,30-35,38-42,44,45,48,50,55,56,58,60,63,65,66,70,71,73,75-79,81-88,92,94,96,97,9501 / 3546 / 4021 / 4601-03	130	800	209 GGC	302 GGC
33	5H 1503,09,10,18,23,29,37,46,47,49,51-54,61,62,64,68,69,72,74 / 4012	330	800	45 GGA	206 CCT
34	5G 1509,10,18,21,23,37,44,51,52,66,72,80,90,93,99	400	1070	45 GGA	272 TGC
35	5F 0727 / 0804,17 / 1503,47,49,54,61,62,64,68,69,74,91 / 2718 / 3803 / 3902,08,13,23 / 4012,46 / 4440 / 4801-05,07-12 / 5518	105	800	206 AGA	272 TGG
36 <sup>3</sup>	5E 1502,13,20,21,25,36,44,62,80,85,88,89 / 3501,03,06-08,10,11,13-17,19-21,23-30,33,35,36,38,40N-42,45-50,52-57 / 4417 / 4802 / 5301-06,08-10 / 5514 / 5609,11 / 570101,06,08 / 5801,04,05,09,10	100	800	355 TCA	419 CGG, 419 CGA
37 <sup>4</sup>	5D 1516,17,67,95 1512,14,19 / 3545 / 4417 / 5807	395 190	800	45 GGA 419 GTC	271 CAT 570 CCG, 572 GCG
38	5C 1513,16,17,23,24,36,43,67,87,89,95	435	800	45 GGA	317 GGA
39	5B 1801-20 / 350202	130	800	234 CAA	324 TAG
40	5A 2701-11,13-15,17,19-21,24,25,27,28	155	800	167 GCT	280 CTT
41	6H 1807 / 2723 / 3501-19,21-25,27,29-58 / 4008,13 / 4406 / 5101-06,08-21,23-37 / 5206 / 5301-08,10 / 7801,02,04	390	800	49 CAG	272 TGA
42	6G 1801-08,10-20 / 3501-18,20-24,28-45,48,50-55,57,58 / 3919 / 5606 / 7801-05	130	800	206 GAC	302 GGC
43	6F 4001,07,(09-11,14),16,(18,19,22N),23,(24-38,40-45,47-50),51,(52-57) / 4101-07 / 4418 / 4501-07 / 4901,02 / 5001-04	315	1070	44 GGC	193 CGT
44	6E 3701-04,07-09 / 5303	130	800	206 GAC	301 GTC
45	6D 1548,69 / 3801-09 / 3901-05,07,08,10-27,31,32 / 4429 / 6701,02	210	800	369 TAC	544 GGT
46 <sup>5</sup>	6C 3801-03,05,08-10	110	800	246 GAA	317 GGA
47	6B 1401-06 / 3801-02,04,05,08-10 / 3901,03-07,09,11,12,14,15,18,19,22,24-33	400	800	44 GGC	272 TGC
48	6A 0702-10,12-26,28-35,37,39,40 / 0801,04,05,07-16,18-24 / 1401-06 / 3901-19,22-33 / 4001,07,(09-11,14,15),16,(18,21,22),23,(24-36,38,40-46,48-50),51,(52-57) / 4101-07 / 4201-06 / 4501-07 / 4801-12 / 5001-04 / 6701,02 / 7301 / 8102	425	800	44 GGC	302 GGC
49	7H 400101-0103,0105,07,10,12,21-23,25,31(w),33,36,38,42,43,46-49,51,52,54,55 / 4431 / 4801(w),03,04(w),06(w),07(w),09(w) / 8101-02(w)	165	800	369 TAC	499 GGA
50	7G 4002-06,08,09,11,13,18-20,24,26-29,35,37,39,40,44,50,56,57	125	800	106 CCG	193 CGT
51	7F 0704,19,25 / 0801-05,07-12,14-19N,21-24 / 1551,83 / 3701,03N-06,08,09 / 4101-03,05-07 / 4201-06 / 4402,05,06,08,09,11,12,14,16,17,19N-25,27,33,34,41 / 5108,20,36 / 5709 / 8301	180	800	391 ACG	538 GTC
52	7E 0702,04-07,09-15,17-26,28-31,33-36,39,40 / 1576,9501 / 2701-11,13-15,17,19-21,24-28 / 4201-06 / 4506 / 4601-04 / 5401-06 / 5501-17,19 / 5601-15 / 6701,02 / 7301 / 8101,02 / 8201,02 / 8301	320	1070	11 CAG	282 GCC
53	7D 3545 / 4402-14,17,19N,21-30,32-36,38-40 / 5707 / 8301	255	800	355 TCA	572 GCG
54	7C 4415,18,20 / 4501-03,05-07 / 5002 / 5123	250	800	357 TGG	572 GCG
55	7B 4601-03	125	800	209 GGC	299 TCA
56	7A 4701-03	230	800	368 GTT	559 CTC
57	8H 2724 / 4031,45 / 4801,04,06,07,09,11,12 / 8101,02	175	800	363 AGC	499 GGA
58	8G 4013,19 / 4418,25 / 4901	140	800	206 GAA	309 ATC
59	8F 1504w,16,42,67,95 / 4901-03 / 5001-04 / 5101-03,07,11N-14,16-18,21-30,32-37 / 5201,02,04-06 / 5501,03,05,09,11,15,17 / 5605,06 / 5808 / 7801-03,05	205	800	357 TGG	527 CCT
60	8E 2702 / 4013,(19) / 4406,25 / 5101-37 / 5201-06 / 5301,02,04-08,10 / 5701-07,(08),09 / 5801-10	430	800	49 CAG	309 ATC
61	8D 1546,53 / 3519,47 / 4001-11,14-18,20,22N-36,38-45,48-57 / 4101-07 / 4409 / 4501-07 / 4702,03 / 5001-04	130	1070	206 GAA	302 GGC
62	8C 1301-06,08-13 / 1501,03-07,12,14,19,20,24-28,30,32-36,38-43,45-50,53,54,56-63,65,66,69,70,73-75,77-79N,81-87,91,92,94,96-98,9501 / 3510,13,16,28 / 4001,07,10,12,14-16,21-23,30-34,36,38,42,43,45-49 / 4101-07 / 4402-05,07-11,13-41 / 4501-07 / 4701-05 / 4901-03 / 5001-04 / 5201-06 / 5518 / 7805	200	800	103 CCG, 103 CCG	259 CTC
63	8B 150104 / 5401-06	215	800	11 CAG	175 CCG
64	8A 0809 / 1542,83 / 3906 / 4204 / 5121,36 / 5401,02,04,05 / 5501-03,05,07,10,12,13,15-19 / 5901	235	800	362 GAC	560 ACG
65	9H 1303 / 1573 / 4410,15,18 / 4501,04-07 / 4901-03 / 5001-04 / 5115 / 5403 / 5601,02,04,07,08,13,14 / 8201,02	175	800	420 TTA	559 CAG
66	9G 1516,17,67,95 / 5701-09	95	800	209 GGC	259 CTC
67	9F 5801-10N	110	800	209 GGA	280 GGA
68 <sup>6</sup>	9E 0738 / 0802,03 / 2723 / 3806,07 / 4013 / 4406 / 5101-06,08-11,13-21,23-37 / 5206 / 5301-08,10 / 5901	85	800	272 CTT	317 GGA
69 <sup>7</sup>	9D 0710 / 1521,44,66 / 3526 / 5122 / 7301 / 7803	145	800	165 ACC	272 TGC
70	9C 4410 w / 8201,02	245	1070	368 GTT	572 GCG
71	9B Bw4	355	800	11 CAG	317 GGA
72	9A Bw6	355	800	11 CAG	311 GGT

Fettdruck: Allele(gruppen) mit Häufigkeiten von mind. 0,001 / Bold letters: parts of allele groups or alleles with min. frequency of 0,001 (Ref.: www.allelefreqencies.net)

Klammern: entsprechende Allelsequenz nicht veröffentlicht / Brackets: corresponding allele sequence not published

IC: PCR Produkte der internen Kontrollprimermixe / PCR products of the internal control primer mixes

w: schwache Bande / weak band

<sup>1</sup> Nukleotidposition und Codon der 3' Primerenden / Nucleotide position and codon of primers 3' ends

<sup>2</sup> Mix # 28: gelegentlich schwache spezifische Bande und unspezifische Bande (> spez. Bande) / occasionally weak specific band and unspecific band (> specific band)

<sup>3</sup> Mix # 36: gelegentlich schwache spezifische Bande und kreuzreaktiv mit / occasionally weak specific band and crossreactive to Cw\*0314,\*0510,\*0710,\*1504,05,09

<sup>4</sup> Mix # 37: gelegentlich Primerdimerbande (< spez. Bande) / occasionally primer dimer band (< specific band)

<sup>5</sup> Mix # 46: gelegentlich schwache spezifische Bande / occasionally weak specific band

<sup>6</sup> Mix # 68: gelegentlich unspezifische Bande (> spez. Bande) / occasionally unspecific band (> specific band)

<sup>7</sup> Mix # 69: gelegentlich schwache spezifische Bande und Primerdimerbande (< spez. Bande) / occasionally weak specific band and primer dimer band (< specific band)



Main table with columns for HLA-B alleles (25-48), Tube No., Ser. Type, and other alleles (49-99). Includes B Allele Specificity and Ser. Type columns.

gelegentlich schwache Bande / occasionally weak band

Multiplex Mix ! 37 s L 2 spezifische Banden / 2 specific bands: s(mall) 190 bp, L(arge) 395 bp

**HLA-READY GENE ABC LOW**  
 SSP HLA-A, B, C low resolution  
 Interpretation Table 1-2 HLA- B

IN VITRO DIAGNOSTICUM



**G953085**  
 2006-12

Allele list based on release 2.9.0 (Apr 2005)  
 of the IMGT/HLA Sequence Database

												Tube No.																																																											
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
4H	4G	4F	4E	4D	4C	4B	4A	5H	5G	5F	5E	5D	5C	5B	5A	6H	6G	6F	6E	6D	6C	6B	6A	7H	7G	7F	7E	7D	7C	7B	7A	8H	8G	8F	8E	8D	8C	8B	8A	9H	9G	9F	9E	9D	9C	9B	9A																								
																								<b>B Allele Specificity</b>												<b>Ser. Type</b>																																			
																								B*4001:01-01:03,07												B60(40)																																			
																								B*4001:04 / 41:04												B60(40), -																																			
																								B*4001:05,51												B60(40), -																																			
																								B*4002:06,20,39												B61(40), B4005, -																																			
																								B*4008												-																																			
																								B*4009,11,18,24,26-29,35,40,44,50,56,57												B61(40), B40, -, B21																																			
																								B*4010,22N,33,36,38,42,43,48,49												B60(40), Null, -																																			
																								B*4012												-																																			
																								B*4013												-																																			
																								B*4014,30,34												-, B60(40)																																			
																								B*4015												-																																			
																								B*4016												B61(40)																																			
																								B*4019												-																																			
																								B*4021												-																																			
																								B*4023												-																																			
																								B*4025,52,54,55												-																																			
																								B*4031												B60(40), -																																			
																								B*4032												-																																			
																								B*4037												-																																			
																								B*4045												-																																			
																								B*4046												-																																			
																								B*4047												-																																			
																								B*4053												-																																			
																								B*4101-03,06												B41, -																																			
																								B*4105,07												-																																			
																								B*4201-03,05,06 / 0719,25												B42, -																																			
																								B*4204												-																																			
																								B*4402,05,11,14,19N,21-24,27,33,34												B44(12), -, B12, Null																																			
																								B*4403,04,07,13,26												B44(12), -, B12, Null																																			
																								B*4406												B44(12)																																			
																								B*4408												B44(12)																																			
																								B*4409												B12																																			
																								B*4410												B44(12)																																			
																								B*4412												B44(12)																																			
																								B*4415												B12																																			
																								B*4416,41												-																																			
																								B*4417												B44(12)																																			
																								B*4418												-																																			
																								B*4420												-																																			
																								B*4425												-																																			
																								B*4429												-																																			
																								B*4431												B44(12)																																			
																								B*4437 / 4704,05												-, -																																			
																								B*4440												-																																			
																								B*4501,05,07												B45(12), -																																			
																								B*4502,03												-																																			
																								B*4504												-																																			
																								B*4506												-																																			
																								B*4601-03												B46																																			
																								B*4701												B47																																			
																								B*4702												B47																																			
																								B*4703												-																																			
																								B*4801,04,07,09												B48, -																																			
																								B*4802												B48																																			
																								B*4803												B48																																			
																								B*4805,08												B48, -																																			
																								B*4806												-																																			
																								B*4810,12												-																																			
																								B*4811												-																																			
																								B*4901												B49(21)																																			
																								B*4902												B49(21)																																			
																								B*4903												-																																			
																								B*5001,04												B50(21)																																			
																								B*5002												B45(12)																																			
																								B*5101-03,11N,13,14,16-18,24,26-30,32-35,37												B51(5), B5102, B5103, Null, -, B52(5)																																			
																								B*5104-06,09,10,19,31 / 5307												B51(5), - / B53																																			
																								B*5107												B51(5)																																			
																								B*5108,20												-																																			
																								B*5112												-																																			
																								B*5115												-																																			
																								B*5121												-																																			
																								B*5122												-																																			
																								B*5123												-																																			
																								B*5136												-																																			
																								B*5201,02,04,05												B52(5), -																																			
																								B*5203												-																																			
																								B*5206												-																																			
																								B*5301,02,04-06,08,10												B53, -																																			
																								B*5303												-																																			
																								B*5309												-																																			
																								B*5401,02,04,05												B54(22), -																																			
																								B*5403												-																																			
																								B*5406												-																																			
																								B*5501,03,05,15,17												B55(22), B22, -																																			
																								B*5502,07,10,12,13,16,19 / 5610												B55(22), B54(22), - / -																																			
																								B*5504,08 / 5603,12,15 / 4604 / 2726												B55(22), B56(22) / B22, -																																			
																								B*5509,11 / 5605												-, B56(22)																																			
																								B*5514 / 5609,11												-, -																																			
																								B*5518												-																																			
																								B*5601,02,04,08,13,14												B56(22), -																																			
																								B*5606												-																																			
																								B*5607												-																																			
																								B*5701:01,06												B57(17), -																																			
																								B*5701:02,02-05												B57(17), -																																			
																								B*5707												-																																			
																								B*5708												-																																			
																								B*5709												-																																			
																								B*5801,04,05,09,10												B58(17), -																																			
																								B*5802,06												B58(17), -																																			
																								B*5807												-																																			
																								B*5808												-																																			
																								B*5901												B59																																			
																								B*6701,02												B67, -																																			
																								B*7301												B73																																			
																								B*7801,02												B78																																			
																								B*7803												-																																			
																								B*7805												-																																			
																								B*8101												B81																																			
																								B*8102												-																																			
																								B*8201,02												-																																			
																								B*8301												-																																			

? gelegentlich schwache Bande / occasionally weak band  
 entsprechende Allelsequenz nicht veröffentlicht / corresponding allele sequence not published  
 Multiplex Mix ! 37 s L 2 spezifische Banden / 2 specific bands: s(mall) 190 bp, L(large) 395 bp

SSP HLA-A, B, C low resolution

## Frequency Table HLA- B



## Frequent alleles:

Allele Specificity	Freq <sup>1</sup>	Ser. Type
<b>B*070201</b>	c*	B7
B*0705	c*	B7
B*0707	ie	B7
B*0720	c*	-
<b>B*0801</b>	c*	B8
B*0804	c*	-
B*0805	c*	-
<b>B*1301</b>	ie,o	B13
B*1302	c*	B13
<b>B*1401</b>	c*	B64(14)
B*1402	c*	B65(14)
B*1405	ie	-
<b>B*15010101</b>	c*	B62(15)
B*1502	ie,o,x	B75(15)
B*1503	c*	B72(70)
B*1504	ai	B62(15)
B*1506	o	B62(15)
B*1507	c*	B62(15)
B*1508	c*	B75(15)
B*1509	c*	B70
B*1510	c*	B71(70)
B*151101	o	B75(15)
B*1512	o	B76(15)
B*1513	a,o	B77(15)
B*1515	c*	B62(15)
B*1516	a,b	B63(15)
B*15170101	c*	B63(15)
B*1518	c*	B71(70)
B*1520	ai	B62(15)
B*1521	o	B75(15)
B*1524	c*	B62(15)
B*1525	o	B62(15)
B*1527	o	B62(15)
B*1532	o	B62(15)
B*1535	o	B62(15)
B*1536	ie	-
B*1539	h,m	B62(15)
B*1558	o	B15
B*1563	ai	-
<b>B*180101</b>	c*	B18
B*1802	o	B18
B*1803	c*	B18
B*1807	ie	-
B*2702	c*	B27
B*2703	x	B27
B*2704	c*	B27
B*270502	c*	B27
B*2706	o	B27
B*2707	c*	B27
B*2708	ie	B2708
B*2709	c*	B27

Allele Specificity	Freq <sup>1</sup>	Ser. Type
<b>B*350101</b>	c*	B35
B*3502	c*	B35
B*3503	c*	B35
B*3504	c*	B35
B*3505	c*	B35
B*3506	ie	B35
B*3508	c*	B35
B*350901	ai	B35
B*3510	ie,x	B35
B*3511	h	B35
B*3512	h,ie,m,x	B35
B*351401	h	B35
B*3515	ie	B35
B*3516	ie,m	B35
B*3517	h,ie,m	B35
B*3518	ai	B35
B*3519	ai	B35
B*3520	ai,ie	B35
B*3525	ie	-
<b>B*3701</b>	c*	B37
<b>B*3801</b>	c*	B38(16)
B*380201	o,ie	B38(16)
<b>B*390101</b>	c*	B3901
B*390201	c*	B3902
B*3903	c*	B39(16)
B*3904	ai	B39(16)
B*3905	c*	B16
B*390601	c*	B39(16)
B*3908	m	B39(16)
B*3909	ai,o	B39(16)
B*3910	a,b	B39(16)
B*3915	o	-
B*3924	a	B39(16)
<b>B*400101</b>	c*	B60(40)
B*4002	c*	B61(40)
B*4003	c*	B61(40)
B*4004	ai	B61(40)
B*4005	c*	B4005
B*40060101	a,ie,o	B61(40)
B*4008	h	-
B*4010	o	B60(40)
B*4011	ie	B40
B*4012	ie	-
B*4027	h	B61(40)
<b>B*4101</b>	c*	B41
B*4102	c*	B41
<b>B*4201</b>	c*	B42

Allele Specificity	Freq <sup>1</sup>	Ser. Type
<b>B*44020101</b>	c*	B44(12)
B*440301	c*	B44(12)
B*4404	c*	B44(12)
B*4405	c*	B44(12)
B*4406	c*	B44(12)
B*4407	c*	B44(12)
B*4408	ie	B44(12)
B*4409	ie	B12
B*4415	a	B12
<b>B*4501</b>	c*	B45(12)
<b>B*4601</b>	c*	B46
<b>B*47010101</b>	c*	B47
<b>B*4801</b>	c*	B48
B*4802	ai,ie	B48
B*4803	ai,o	B48
<b>B*4901</b>	c*	B49(21)
<b>B*5001</b>	c*	B50(21)
B*5002	c*	B45(12)
<b>B*510101</b>	c*	B51(5)
B*510102	ie	B51(5)
B*510201	o	B5102
B*5103	b,ie	B5103
B*5106	ie	B51(5)
B*5107	ie,m,o	B51(5)
B*5108	c*	B51(5)
B*5109	c*	B51(5)
B*5110	ie	-
B*5115	ie	-
<b>B*520101</b>	c*	B52(5)
<b>B*5301</b>	c*	B53
B*5302	c*	-
B*5303	ie	-
<b>B*5401</b>	ie,o	B54(22)
<b>B*5501</b>	c*	B55(22)
B*5502	o	B55(22)
B*5504	ie,o	B55(22)
B*5507	o	B54(22)
<b>B*5601</b>	c*	B56(22)
B*5602	o	B56(22)
B*5603	o	B22
B*5604	ie,o	B56(22)
B*560501	ie	B56(22)
<b>B*570101</b>	c*	B57(17)
B*5702	c*	B57(17)
B*570301	c*	B57(17)
<b>B*5801</b>	c*	B58(17)
B*5802	c*	B58(17)
<b>B*5901</b>	c*	B59
<b>B*670101</b>	c*	B67
<b>B*7301</b>	c*	B73
<b>B*7801</b>	m	B78
B*7803	ie	-
<b>B*8101</b>	c*	B81
<b>B*8201</b>	b	-

<sup>1</sup> allele frequency min. 0,001 (Ref.: www.allele-frequencies.net): a arab, ai amerindian, b black, c\* caucasoid (and other)

h hispanic, ie indo-european, m mixed (Cuban Mulatto, Mexico Mestizos), o oriental, x Yupik Natives

# HLA-READY GENE ABC Low

SSP HLA-A, B, C low resolution

## Spezifitätstabelle / Specificity Table HLA- C

IN VITRO DIAGNOSTICUM



**LOT** G953085



2006-12

Allele list based on release  
2.9.0 (Apr 2005) of the  
IMGT/HLA Sequence Database

Tube No.		Amplified HLA-Cw* alleles	Size of PCR Product [bp]	Size of IC [bp]	5' primer(s) <sup>1</sup>	3' primer(s) <sup>1</sup>
73	10H	-	-	1070		
74	10G	0102-11	240	800	89 GAA	289 AGT
75 <sup>2</sup>	10F	0202-10 / 1511	210	800	118 CCA	289 AGT
76	10E	0302,14,15	205	800	419 GTC	589 CTT
77 <sup>3</sup>	10D	0202-07,09,10 / 0302,04-10,14-17,19 / 0403,06 / 0720 / 1403 / 1502-09,11,13,14	240	800	134 CCA	343 ACC
78	10C	0303-05,07-11,13,17,18	210	800	419 GTA	589 CTT
79 <sup>4</sup>	10B	0303,11-13,18 / 1512	285	800	103 CCG	343 ACT
80	10A	0401-14 / 1210 / 140203,03	440	800	201 CCA	368 CAA
81	11H	050101,02-09,11 / 0801-11	130	800	361 AGA	453 TCA
82	11G	0602-10 / 1801,02	125	1070	213 CCC	302 GGT
83	11F	0501-11 / 0605 / 0810	160	800	176 GCA	302 GGT
84 <sup>5</sup>	11E	0702,03,10,13,15,17,19,23,25,29	215	800	368 GTC	538 CAG
85	11D	0501,03-08,11 / 0704,11,12 / 0801-11	280	800	361 AGA	601 CTT
86 <sup>6</sup>	11C	0314 / 0701,02,04-11,13-16,18-27 / 1214 / B*4052, B*5805	130	800	419 GTC	512 CCA
87	11B	0801-09,11,12	160	800	176 GCA	302 GGC
88	11A	1202,08,10	155	800	361 AGA	477 GCA
89	12H	120301,0303,0402-07,11-13	95	800	419 GTC	474 GCA
90	12G	0104,09 / 0205 / 0602,03,07-11 / 1203-07,11-13,15 / 1604	215	800	361 AGT	538 CCA
91	12F	0611 / 0704,11,12	125	1070	213 CCC	302 GGC
92	12E	0411 / 1402-06	255	800	98 CTC	311 GGT
93	12D	1208 / 1502-10,12-14	105	800	201 CCA	270 TAG
94	12C	1601-06	215	800	650 TCT	829 TTC
95	12B	1701-03	180	800	355 CCA	499 GGA
96 <sup>7</sup>	12A	0401-10,12-14 / 0708 / 1801,02 / A*2419	310	800	341 GGA	368 CAA

**Fettdruck:** Allel(gruppen) mit Häufigkeiten von mind. 0,001 / **Bold letters:** parts of allele groups or alleles with min. frequency of 0,001 (Ref.: [www.allelefreqencies.net](http://www.allelefreqencies.net))

**IC:** PCR Produkte der internen Kontrollprimermixe / PCR products of the internal control primer mixes

<sup>1</sup> Nukleotidposition und Codon der 3' Primerenden / nucleotide position and codon of primers 3' ends

<sup>2</sup> **Mix # 75:** gelegentlich Primerdimerbande (< spez. Bande) / occasionally primer dimer band (< specific band)

<sup>3</sup> **Mix # 77:** gelegentlich schwache spezifische Bande und unspezifische Bande (> spezifische Bande) / occasionally weak specific band and unspecific band (> specific band)

<sup>4</sup> **Mix # 79:** gelegentlich schwache spezifische Bande / occasionally weak specific band

<sup>5</sup> **Mix # 84:** kreuzreaktiv mit B\*1818,\*3548,\*5307 und gelegentlich Hintergrund / crossreactive to B\*1818,\*3548,\*5307 and occasionally background

<sup>6</sup> **Mix # 86:** kreuzreaktiv mit / crossreactive to B\*4052,\*5805

<sup>7</sup> **Mix # 96:** schwach kreuzreaktiv mit / weak crossreactive to A\*2419,44

# HLA-READY GENE ABC Low

SSP HLA-A, B, C low resolution

## Interpretation Table 1 HLA- C

IN VITRO DIAGNOSTICUM



LOT

G953085



2006-12

Allele list based on release 2.9.0 (Apr 2005) of the IMGT/HLA Sequence Database<sup>1</sup>

Tube No.	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	Ser. Type
	10H	10G	10F	10E	10D	10C	10B	10A	11H	11G	11F	11E	11D	11C	11B	11A	12H	12G	12F	12E	12D	12C	12B	12A	
Size of PCR Product [bp]	-	240	210	205	240	210	285	440	130	125	160	215	280	130	160	155	95	215	125	255	105	215	180	310	
<b>Allele Specificity</b>																								<b>Ser. Type</b>	
- (IC-1070)	73																								-
Cw*0102,03,05-08,10,11		74																							Cw1, -
Cw*0104,09		74																90							-
Cw*0202-04,06,07,09,10 / 1511			75		77																				Cw2, - / -
Cw*0205			75		77														90						-
Cw*0208			75																						-
Cw*0302,15				76	77																				Cw10(w3), -
Cw*0303,11,13,18						78	79																		Cw9(w3), -
Cw*0304,05,07-10,17					77	78																			Cw10(w3), -, Cw3(c)
Cw*0306,16,19					77																				-
Cw*0312							79																		-
Cw*0314				76	77									86											-
Cw*0401,04,05,07-10,12-14								80															96		Cw4, -, Null
Cw*0403,06					77			80															96		-
Cw*0411 / 140203								80												92					- / -
Cw*0415																									-
Cw*050101,03-08,11 / 0810									81		83		85												Cw5, -, Null / -
Cw*050102											83		85												-
Cw*0502,09									81		83														-
Cw*0510											83														-
Cw*0602,03,07-10										82								90							Cw6, -
Cw*0604,06										82															-
Cw*0605										82	83														Cw6
Cw*0611																		90	91						-
Cw*0701,05-07,09,14,16,18,21,22,24,26,27 / 1214														86											Cw7, - / -
Cw*0702,10,13,15,19,23,25												84		86											Cw7, -
Cw*0703,17,29												84													-
Cw*0704,11													85	86					91						Cw7, -
Cw*0708														86									96		-
Cw*0712													85						91						Cw7, -
Cw*0720							77							86											-
Cw*0728																									-
Cw*0801-09,11										81			85		87										Cw8, Cw8c, -
Cw*0812															87										-
Cw*1202																88									-
Cw*120301,0303,0402-07,11-13																	89	90							-
Cw*120302,0401,15																		90							-
Cw*1208																	88				93				-
Cw*1209																									-
Cw*1210								80								88									-
Cw*140201,0202,04-06																				92					-
Cw*1403					77			80												92					-
Cw*1502-09,13,14					77																93				-
Cw*1510																					93				-
Cw*1512							79														93				-
Cw*1601,02,06																						94			-
Cw*160401																		90				94			-
Cw*1701-03																							95		-
Cw*1801,02										82														96	-



gelegentlich schwache Bande / occasionally weak band

SSP HLA-A, B, C low resolution



## Frequency Table

### Frequent alleles:

Allele Specificity	Freq <sup>1</sup>	Ser. Type
<b>Cw*010201</b>	c*	Cw1
Cw*0103	h,o	Cw1
Cw*0104	ie	-
<b>Cw*020201</b>	c*	Cw2
Cw*0203	ie	-
<b>Cw*030201</b>	c*	Cw10(w3)
Cw*030301	c*	Cw9(w3)
Cw*030401	c*	Cw10(w3)
Cw*0305	c*	-
Cw*0306	ie	-
<b>Cw*04010101</b>	c*	Cw4
Cw*040102	ie	Cw4
Cw*0403	ie,o	-
Cw*040401	h,ie,x	-
Cw*0407	ie	-
<b>Cw*050101</b>	c*	Cw5
Cw*0502	ie	Cw5
<b>Cw*0602</b>	c*	Cw6
Cw*0603	ie	-
Cw*0604	c*	-
<b>Cw*070101</b>	c*	Cw7
Cw*07020101	c*	Cw7
Cw*0703	c*	-
Cw*070401	c*	Cw7
Cw*0705	b,ie	-
Cw*0706	h	Cw7
Cw*0707	h,ie,m	-
Cw*0708	ie	-
Cw*0710	m	-
Cw*0714	ie	Cw7

Allele Specificity	Freq <sup>1</sup>	Ser. Type
<b>Cw*080101</b>	c*	Cw8
Cw*080102	o	Cw8
Cw*0802	c*	Cw8
Cw*0803	x	Cw8
Cw*0804	b	Cw8c
Cw*0806	ie,x	-
<b>Cw*120201</b>	c*	-
Cw*120203	ie	-
Cw*120301	c*	-
Cw*120401	c*	-
Cw*1205	ie,x	-
<b>Cw*140201</b>	c*	-
Cw*1403	c*	-
Cw*1404	ie	-
<b>Cw*150201</b>	c*	-
Cw*1503	ie	-
Cw*1504	h,ie	-
Cw*150501	c*	-
Cw*1507	ie	-
Cw*1508	ie	-
Cw*1509	h	-
<b>Cw*160101</b>	c*	-
Cw*1602	c*	-
Cw*160401	c*	-
<b>Cw*1701</b>	c*	-
Cw*1702	h	-
Cw*1703	c*	-
<b>Cw*1801</b>	b,ie	-

<sup>1</sup> allele frequency min. 0,001 (Ref.: [www.allelefrequencies.net](http://www.allelefrequencies.net)): a arab, ai amerindian, b black, c\* caucasoid (and other)  
h hispanic, ie indo-european, m mixed (Russia-Murmansk Saomi, -Nenets), o oriental, x Yupik Natives

