

Guidelines for the Blood Transfusion Services

16.5: Testing of HLA genes and gene products

<http://www.transfusionguidelines.org/red-book/chapter-16-hla-typing-and-hla-serology/16-5-testing-of-hla-genes-and-gene-products>

16.5: Testing of HLA genes and gene products

DNA-based methods must identify all HLA alleles included in the most recent WHO Nomenclature Committee for Factors of the HLA System Report² and Nomenclature for Factors of the HLA System, 2010³. Alleles should be reported either as individual alleles or as allele groups with two digits (first field). Definitions of allelic, high, intermediate and low resolution molecular HLA typing are available through EFI.

The minimum level of resolution by serological typing is given in Table 16.1. Typing to the level of broad specificities is acceptable but the higher level to include the split specificities, as indicated, is recommended. HLA-C types Cw12 and Cw14 to Cw18 have not been formally designated as recognised antigens and may not be identified serologically.

Table 16.1 HLA antigens that are defined by serological typing (with broad specificities shown in brackets)

HLA-A	HLA-B	HLA-C	HLA-DR	HLA-DQ
A1	B7	Cw1	DR1	DQ5 (1)
A2	B8	Cw2	DR15 (2)	DQ6 (1)
A3	B13	Cw9 (3)	DR16 (2)	DQ2
A11	B18	Cw10 (3)	DR17 (3)	DQ7 (3)
A23 (A9)	B27	Cw4	DR18 (3)	DQ8 (3)
A24 (A9)	B35	Cw5	DR4	DQ9 (3)
A25 (A10)	B37	Cw6	DR11 (5)	DQ4

A26 (A10)	B38 (B16)	Cw7	DR12 (5)	
A29 (A19)	B39 (B16)	Cw8	DR13 (6)	
A30 (A19)	B41	Cw12*	DR14 (6)	
A31 (A19)	B42	Cw14*	DR7	
A32 (A19)	B45	Cw15*	DR8	
A33 (A19)	B44	Cw16*	DR9	
A34 (A10)	B46	Cw17*	DR10	
A36	B47	Cw18*	DR103	
A43	B48			
A66 (A10)	B49 (B21)		DR51	
A68 (A28)	B50 (B21)		DR52	
A69 (A28)	B51 (B5)		DR53	
A74 (A19)	B52 (B5)			
A80	B53			
	B54 (B22)			
	B55 (B22)			
	B56 (B22)			
	B57 (B17)			

	B58 (B17)			
	B59			
	B60 (B40)			
	B61 (B40)			
	B62 (B15)			
	B63 (B15)			
	B64 (B14)			
	B65 (B14)			
	B67			
	B71 (B70)			
	B72 (B70)			
	B73			
	B75 (B15)			
	B76 (B15)			
	B77 (B15)			
	B78			
	B81			
	Bw4			

	Bw6			
<p>* The products of the Cw12 and Cw14 to Cw18 genes have not been formally designated as recognised antigens and might not be identified serologically.</p>				