



27	36	.0056	5 10 5 17 2 12 <b>35</b>	12 2 <b>4</b> 6 3 1 3 6 5 2 2 2 2 4 4 3 7 <b>2</b>	13 13 4 1 19 1 2 7 6 13 8 -	3:7 (30.0)	.34	-.361	13	.24
28	-	.0026	4 - 7 3 4 1 <b>nd</b>	18 3 <b>6</b> 1 8 1 4 6 4 1 2 2 7 2 5 3 1 <b>7</b>	12 - 4 14 - 2 2 8 7 9 2 6	2:2 (50.0)	1.00	-.200	5	-
29	58	.0133	4 5 7 7 4 5 <b>44</b>	11 2 <b>4</b> 8 8 1 3 6 5 2 1 1 4 4 6 4 6 <b>6</b>	7 8 4 16 18 1 2 5 3 6 3 15	10:15 (40.0)	.42	-.205	29	.24
30	4	.0022	3 10 11 3 1 12 <b>18</b>	15 4 <b>7</b> 12 11 13 1 2 6 2 1 1 5 2 6 4 5 <b>6</b>	7 8 4 20 - 1 2 6 3 7 4 10	3:1 (75.0)	1.00	.250	4	-
31	5	.0078	5 10 10 17 1 12 <b>18</b>	16 3 <b>7</b> 12 11 14 1 2 5 2 1 1 5 2 6 4 8 <b>6</b>	13 9 4 2 - 1 2 6 3 6 1 13	4:10 (28.9)	.18	-.423	14	.10
32	2	.0019	3 6 10 13 4 5 <b>nd</b>	19 3 <b>7</b> 3 11 8 1 2 4 2 2 2 2 4 6 4 7 <b>4</b>	2 2 2 4 21 1 2 7 3 8 3 9	4:1 (80.0)	.38	.600	5	-
33	1	.0063	6 - - - 4 5 <b>nd</b>	17 3 <b>7</b> 3 11 8 1 2 4 2 2 2 2 4 6 4 8 <b>4</b>	2 2 2 4 21 1 2 7 3 8 3 9	3:11 (21.4)	.057	-.600	16	.037
34	3	.0059	3 5 1 3 1 1 <b>18</b>	5 2 <b>5</b> 4 10 8 1 2 4 2 2 2 2 4 6 4 10 <b>6</b>	16 10 4 13 10 1 2 9 4 6 5 2	5:7 (41.7)	.77	-.115	13	.63
35	16	.0037	5 5 6 6 5 3 <b>39</b>	7 3 <b>702</b> 3 5 15 5 1 3 3 1 1 4 4 6 3 6 <b>2</b>	15 10 4 1 16 1 1 8 3 5 4 -	6:3 (66.7)	.51	.222	9	.34
36	-	.0019	4 - 11 6 3 5 <b>7</b>	9 3 <b>702</b> 1 7 15 5 1 3 3 1 1 4 4 6 3 2 <b>2</b>	2 2 2 4 26 2 2 6 3 - 4 10	2:3 (40.0)	1.00	-.400	5	.53
37	14	.0926	6 6 11 6 3 5 <b>7</b>	9 3 <b>702</b> 1 7 - 5 1 3 3 1 1 4 4 6 3 2 <b>2</b>	2 2 2 4 23 2 2 5 3 5 3 5	66:104 (38.8)	.0044	-.228	171	$3.0 \times 10^{-4}$
38	13	.0056	- 10 - - 3 5 <b>nd</b>	9 3 <b>702</b> 1 7 - 5 1 3 3 1 1 4 4 6 3 2 <b>2</b>	2 2 2 4 23 2 2 5 3 5 3 5	5:5 (50.0)	1.00	.091	12	.85
39	15	.0041	4 5 11 6 5 3 <b>39</b>	7 3 <b>702</b> 2 5 - 5 1 3 3 1 1 4 4 6 3 2 <b>2</b>	2 2 2 4 23 2 2 4 6 13 4 10	6:2 (75.0)	.29	.563	8	-
40	18	.0048	5 10 11 6 4 8 <b>45</b>	16 3 <b>6</b> 17 3 2 3 6 1 3 1 1 4 4 6 4 3 <b>7</b>	2 2 2 4 20 1 2 6 6 13 3 -	5:2 (71.4)	.45	.476	7	-
41	19	.0141	2 6 5 3 4 6 <b>50</b>	16 3 <b>6</b> 9 3 2 3 6 1 3 1 1 9 3 4 3 1 <b>3</b>	2 2 2 4 8 2 1 4 3 5 3 9	20:8 (71.4)	.036	.427	32	.027
42	-	.0019	6 13 2 12 5 9 <b>nd</b>	18 3 7 13 3 4 3 6 1 3 1 1 9 2 4 3 6 <b>5</b>	2 2 2 4 16 2 1 6 6 13 8 5	2:3 (40.0)	1.00	-.200	5	-
43	23	.0204	6 6 9 9 3 10 <b>37</b>	15 3 <b>6</b> 13 3 2 3 6 1 3 1 1 8 2 4 3 1 <b>7</b>	2 2 2 4 26 1 2 4 6 13 8 5	28:12 (70.0)	.017	.348	44	.010
44	24+25	.0881	6 13 2 12 5 9 <b>57</b>	15 3 <b>6</b> 13 3 2 3 6 1 3 1 1 8 2 4 3 1 <b>7</b>	2 2 2 4 20 1 2 4 6 13 8 5	138:38 (78.4)	$1.6 \times 10^{-14}$	.574	173	$1.7 \times 10^{-15}$
45	-	.0026	6 13 2 12 5 9 <b>57</b>	15 3 <b>6</b> 13 3 2 3 6 1 3 1 1 8 2 4 3 1 <b>7</b>	2 1 2 4 1 1 2 7 3 6 3 16	4:1 (80.0)	.38	.400	7	-
46	20	.0022	4 14 10 8 3 13 <b>nd</b>	15 3 <b>6</b> 17 3 2 3 6 1 3 1 1 9 2 4 3 1 <b>7</b>	2 2 2 4 13 1 2 6 4 7 6 5	3:2 (60.0)	1.00	.333	6	-
47	21+22	.0615	3 6 7 7 3 5 <b>13</b>	16 3 <b>6</b> 15 3 2 3 6 1 3 1 1 9 2 4 3 1 <b>1</b>	2 2 2 4 16 1 2 7 9 9 3 3	84:37 (69.4)	$2.3 \times 10^{-5}$	.406	122	$6.6 \times 10^{-7}$
48	-	.0030	2 5 2 3 4 3 <b>65</b>	5 2 <b>8</b> 15 3 5 3 6 1 3 1 1 12 2 4 3 6 <b>5</b>	2 1 2 4 1 1 2 7 3 6 3 16	2:5 (28.6)	.45	-.250	8	-
49	26	.0904	8 4 2 16 3 12 <b>8</b>	7 3 <b>701</b> 15 3 5 3 6 1 3 1 1 10 2 4 3 6 <b>5</b>	2 1 2 4 1 1 2 7 3 6 3 16	69:80 (46.3)	.41	-.073	161	.30
50	-	.0019	4 6 6 4 5 11 <b>nd</b>	11 2 <b>4</b> 12 3 1 3 6 1 3 1 1 5 2 2 2 6 <b>4</b>	14 10 4 14 - 1 2 7 5 5 3 10	3:1 (75.0)	1.00	.200	5	-
51	17	.0189	4 6 2 3 4 3 <b>65</b>	5 2 <b>8</b> 13 3 2 3 6 1 3 1 1 9 2 4 3 8 <b>4</b>	3 10 4 16 - 1 2 6 4 6 2 21	26:13 (65.0)	.053	.268	43	.0048
52	28	.0026	6 - 11 19 3 4 <b>7</b>	10 2 <b>15</b> 8 3 1 3 6 5 1 1 2 5 2 5 3 5 <b>6</b>	2 2 2 4 23 2 2 4 7 9 3 -	2:4 (33.3)	.69	-.306	6	-
53	55	.0022	4 5 2 10 2 1 <b>62</b>	9 2 <b>303</b> - 3 9 7 6 6 2 2 2 8 2 5 3 7 <b>4</b>	2 2 2 4 14 2 1 6 6 13 8 6	3:3 (50.0)	1.00	-.037	6	-
54	29	.0026	6 10 4 4 3 15 <b>44</b>	8 2 <b>704</b> 8 3 1 3 6 4 1 2 2 8 2 5 3 7 <b>4</b>	2 2 2 4 14 2 1 6 4 8 3 -	1:3 (25.0)	.63	.000	6	-
55	43	.0019	4 5 6 3 2 1 <b>nd</b>	16 2 <b>6</b> 15 3 5 2 6 1 3 2 4 2 1 5 3 7 <b>4</b>	2 2 2 4 9 2 1 6 3 6 1 -	4:0 (100.0)	.13	.800	5	-
56	45	.0093	5 5 11 8 3 12 <b>60</b>	12 2 <b>304</b> 15 3 7 6 6 2 2 2 4 2 1 6 3 9 <b>4</b>	2 2 2 4 11 2 1 6 3 6 4 -	3:13 (18.8)	.021	-.571	20	.011
57	44	.0148	3 5 4 16 3 13 <b>60</b>	12 2 <b>304</b> 15 3 7 6 6 5 2 2 4 2 1 6 3 8 <b>4</b>	2 3 2 4 11 2 1 6 3 8 4 9	6:19 (24.0)	.015	-.435	27	.015
58	-	.0022	5 10 6 3 3 13 <b>60</b>	12 2 <b>304</b> 15 3 8 6 6 5 2 2 4 2 1 6 3 8 <b>4</b>	2 2 2 4 11 2 1 7 3 6 7 13	2:3 (40.0)	1.00	-.333	6	-
59	46	.0019	4 5 6 3 3 12 <b>62</b>	14 2 <b>3</b> 15 3 8 6 6 5 2 2 4 2 1 6 3 - <b>4</b>	2 2 2 4 11 2 1 6 3 6 4 -	3:1 (75.0)	.63	.600	5	-
60	47+48	.0252	6 10 2 10 2 1 <b>62</b>	14 2 <b>304</b> 15 3 8 6 6 5 2 2 4 2 1 6 3 8 <b>4</b>	2 2 2 4 11 2 1 6 3 6 4 11	20:33 (37.7)	.098	-.244	56	.032
61	53	.0022	4 15 10 6 1 10 <b>nd</b>	9 2 <b>3</b> 13 3 9 7 6 7 2 2 4 2 1 6 3 8 <b>4</b>	2 2 2 4 11 2 1 8 6 13 1 5	3:2 (60.0)	1.00	.000	6	-
62	54	.0085	4 - 10 6 1 10 <b>55</b>	9 2 <b>303</b> 13 3 9 7 6 7 2 2 4 2 1 6 3 8 <b>4</b>	2 2 2 4 11 2 1 8 3 6 2 -	11:10 (52.4)	1.00	.024	22	.64
63	-	.0026	4 15 10 6 1 10 <b>55</b>	9 2 <b>303</b> - 3 9 7 6 - 2 2 4 2 1 6 3 8 <b>4</b>	2 2 2 4 11 2 1 7 3 6 7 6	2:3 (40.0)	1.00	-.467	5	-
64	52	.0096	5 5 6 3 2 1 <b>62</b>	9 2 <b>303</b> 13 3 11 7 6 7 2 2 4 2 1 6 3 2 <b>2</b>	2 2 2 4 17 2 1 6 3 6 8 -	9:10 (47.4)	1.00	-.053	19	.36
65	49	.0033	5 - 6 3 3 1 <b>62</b>	9 2 <b>303</b> 13 3 9 7 6 7 2 2 4 2 1 6 3 2 <b>2</b>	2 2 2 4 - 1 2 6 3 6 3 -	3:6 (33.3)	.51	-.370	9	-

66	50	.0059	<i>4</i>	<i>5</i>	<i>2</i>	<i>10</i>	<i>2</i>	<i>1</i>	<b>62</b>	9	2	<b>303</b>	<i>13</i>	<i>3</i>	<i>9</i>	<i>7</i>	<i>6</i>	<i>7</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>2</i>	<i>1</i>	<i>6</i>	<i>3</i>	<i>2</i>	<b>2</b>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>4</i>	–	<i>1</i>	<i>2</i>	<i>6</i>	<i>3</i>	<i>6</i>	<i>3</i>	<i>6</i>	2:10 (16.7)	.039	–.594	15	.020
67	51	.0026	<i>5</i>	<i>10</i>	<i>2</i>	<i>10</i>	<i>2</i>	<i>1</i>	<b>62</b>	9	2	<b>303</b>	<i>13</i>	<i>3</i>	<i>9</i>	<i>7</i>	<i>6</i>	<i>7</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>2</i>	<i>1</i>	<i>6</i>	<i>3</i>	<i>2</i>	<b>2</b>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>23</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>6</i>	<i>13</i>	–	–	2:2 (50.0)	1.00	.000	4	–
68	56	.0204	<i>4</i>	<i>5</i>	<i>7</i>	<i>7</i>	<i>4</i>	<i>5</i>	<b>44</b>	3	2	<b>16</b>	<i>15</i>	<i>3</i>	<i>9</i>	<i>6</i>	<i>6</i>	<i>5</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>2</i>	<i>1</i>	<i>5</i>	<i>3</i>	<i>6</i>	<b>4</b>	<i>2</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>20</i>	<i>2</i>	<i>1</i>	<i>6</i>	<i>4</i>	<i>3</i>	<i>3</i>	<i>5</i>	21:27 (43.8)	.47	–.119	51	.53	
69	11	.0041	<i>5</i>	<i>10</i>	<i>10</i>	<i>4</i>	<i>2</i>	<i>8</i>	<b>nd</b>	1	3	<b>2</b>	<i>8</i>	<i>3</i>	<i>6</i>	<i>4</i>	<i>3</i>	<i>5</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>5</i>	<i>2</i>	<i>2</i>	<i>2</i>	<b>7</b>	<b>4</b>	<i>2</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>17</i>	<i>2</i>	<i>1</i>	<i>5</i>	<i>6</i>	<i>6</i>	<i>1</i>	–	2:6 (25.0)	.29	–.500	8	–	
70	10	.0044	<i>5</i>	<i>5</i>	<i>6</i>	<i>3</i>	<i>1</i>	<i>7</i>	<b>27</b>	1	3	<b>2</b>	<i>8</i>	<i>3</i>	<i>6</i>	<i>4</i>	<i>3</i>	<i>5</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>5</i>	<i>2</i>	<i>2</i>	<i>2</i>	<b>6</b>	<b>4</b>	<i>2</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>17</i>	<i>2</i>	<i>1</i>	<i>6</i>	<i>3</i>	<i>6</i>	<i>1</i>	<i>5</i>	6:4 (60.0)	.75	.200	11	.24	
71	8	.0041	<i>5</i>	<i>10</i>	<i>10</i>	<i>3</i>	<i>1</i>	<i>7</i>	<b>27</b>	1	3	<b>2</b>	<i>6</i>	<i>3</i>	<i>4</i>	<i>4</i>	<i>3</i>	<i>5</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>5</i>	<i>2</i>	<i>2</i>	<i>2</i>	–	<b>4</b>	<i>2</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>14</i>	<i>2</i>	<i>1</i>	<i>6</i>	<i>3</i>	<i>6</i>	<i>1</i>	<i>11</i>	3:4 (42.9)	1.00	–.111	9	–	
72	9	.0022	<i>5</i>	<i>10</i>	<i>10</i>	<i>6</i>	<i>3</i>	<i>15</i>	<b>nd</b>	1	3	<b>6</b>	<i>6</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>3</i>	<i>5</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>5</i>	<i>2</i>	<i>2</i>	<i>2</i>	<b>9</b>	<b>4</b>	<i>2</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>14</i>	<i>2</i>	<i>1</i>	<i>6</i>	<i>3</i>	<i>6</i>	<i>1</i>	–	0:5 (0.00)	.063	–1.000	5	–	
73	7	.0030	<i>6</i>	<i>5</i>	<i>9</i>	<i>3</i>	<i>1</i>	<i>7</i>	<b>27</b>	1	3	<b>2</b>	<i>8</i>	<i>3</i>	<i>6</i>	<i>4</i>	<i>3</i>	<i>4</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>5</i>	<i>2</i>	<i>2</i>	<i>2</i>	<b>7</b>	<b>6</b>	<i>13</i>	<i>10</i>	<i>4</i>	<i>1</i>	<i>13</i>	<i>1</i>	<i>1</i>	<i>8</i>	<i>3</i>	<i>6</i>	<i>1</i>	<i>10</i>	4:3 (57.1)	1.00	.143	7	–	
74	12	.0037	<i>5</i>	<i>10</i>	<i>10</i>	<i>3</i>	<i>4</i>	<i>11</i>	<b>nd</b>	1	3	<b>2</b>	<i>8</i>	<i>3</i>	<i>6</i>	<i>4</i>	<i>3</i>	<i>5</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>2</i>	<i>1</i>	<i>6</i>	<i>3</i>	<b>2</b>	<i>2</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>26</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>3</i>	<i>6</i>	<i>1</i>	<i>11</i>	6:1 (85.7)	.13	.500	8	–	
75	6	.0030	<i>7</i>	<i>8</i>	<i>10</i>	<i>9</i>	<i>3</i>	<i>1</i>	<b>63</b>	<i>15</i>	<i>3</i>	<b>7</b>	<i>10</i>	<i>2</i>	<i>8</i>	<i>1</i>	<i>2</i>	<i>5</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>10</i>	<i>2</i>	<i>4</i>	<i>3</i>	<b>5</b>	<i>2</i>	<i>2</i>	<i>2</i>	<i>4</i>	<i>14</i>	<i>2</i>	<i>1</i>	<i>6</i>	<i>3</i>	<i>6</i>	<i>3</i>	<i>5</i>	5:2 (71.4)	.45	.429	7	–		

NOTE—The table displays all 36 markers subjected to haplotype clustering, along with HLA-B, in centromeric to telomeric order from left to right. Dashes (–) indicate that no allele occurred in at least 50% of the founder haplotypes comprising the cluster. *Italicized numbers* indicate that the allele shown occurred in between 50 to 80% of the founder haplotypes comprising the cluster. Non-italicized numbers indicate that the allele shown occurred in at least 80% of the founder haplotypes comprising the cluster. The symbol ‘nd’ denotes no data. Alleles at the three gene loci (HLA-B, HLA-C, and CDSN) are shown in boldface type. Alleles are shaded when they differ among HLA-Cw6 haplotypes for a marker or gene but are not indicative of a significant difference in the underlying sequence of the region. The dashed boxes shows the minimum region of conserved or shaded marker alleles shared in common by all HLA-Cw6 haplotypes.

<sup>a</sup> Cluster numbers for current 36-marker clustering of haplotypes of 2700 founder chromosomes in 620 pedigrees are shown. All clusters with a frequency of at least 0.2% (5 occurrences) are shown.

<sup>b</sup> Cluster numbers for previous 34-marker clustering of haplotypes of 2156 founder chromosomes in 491 pedigrees (Nair et al., 2000, AJHG 66:1833-1844), which represent a subset of the pedigrees and founders used for this table.

<sup>c</sup> Frequency of haplotypes in cluster.

<sup>d</sup> Ratio of transmissions (T) to nontransmissions (NT) and percent transmission (% T) of the haplotype cluster for the biallelic TDT.

<sup>e</sup> Uncorrected exact binomial p-value for TDT.

<sup>f</sup> The number of families that are informative for the haplotype cluster being tested by the PDT.

<sup>g</sup>  $\overline{D}$  is a standardized measure of disequilibrium for the PDT with a range of [-1.00,1.00].

<sup>h</sup> Uncorrected p-value for the PDT-avg test using all trios and discordant sibpairs.