

Table 4: HLA Results for VSCC16 and CXSCC16 class I and class II with multilocus genotypes for three significant co-occurring allele associations

					Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald <i>p</i> value
HLA-A	HLA-B	HLA-C	HLA-DRB1	HLA-DQB1	n	%	n	%	OR	95% CI	n	%	OR	95% CI	
02:01	44:02	05:01	x	03:01	38	6.5	25	11.0	1.8	(1.0-3.0)*	24	12.0	1.9	(1.1-3.3)*	0.737
02:01	44:02	x	04:01	03:01	29	5.0	21	9.2	1.9	(1.1-3.5)*	21	10.4	2.2	(1.2-4.0)*	0.667
x	44:02	05:01	04:01	03:01	30	5.2	22	9.6	2.0	(1.1-3.5)*	24	12.1	2.5	(1.4-4.4)*	0.424
x	44:03	16:01	07:01	02:02	29	5.0	22	9.6	2.0	(1.1-3.6)*	13	6.5	1.3	(0.7-2.6)	0.244
02:01	44:02	05:01	04:01	03:01	27	4.6	21	9.2	2.1	(1.2-3.8)*	20	10.1	2.3	(1.3-4.2)*	0.769
29:02	44:03	16:01	07:01	02:02	20	3.4	16	7.0	2.1	(1.1-4.2)*	6	3.0	0.9	(0.3-2.2)	0.070
29:02	44:03	16:01	07:01	x	20	3.4	16	6.8	2.1	(1.1-4.1)*	6	3.0	0.9	(0.4-2.2)	0.077
29:02	44:03	16:01	x	02:02	20	3.4	16	7.0	2.1	(1.1-4.2)*	6	3.0	0.9	(0.3-2.2)	0.068
29:02	44:03	x	07:01	02:02	20	3.4	16	7.0	2.1	(1.1-4.2)*	6	3.0	0.9	(0.3-2.2)	0.066
02:01	44:02	05:01	04:01	x	28	4.7	23	9.8	2.2	(1.2-3.9)*	23	11.5	2.6	(1.5-4.7)*	0.573
02:01	44:02	x	15:01	06:02	13	2.2	12	5.3	2.4	(1.1-5.4)*	10	5.0	2.3	(1.0-5.3)	0.893
02:01	44:02	x	15:01	x	13	2.2	12	5.1	2.4	(1.1-5.4)*	10	5.0	2.3	(1.0-5.4)*	0.933
x	44:02	x	11:01	03:01	7	1.2	13	5.7	5.0	(2.0-12.7)*	18	9.0	8.1	(3.3-19.7)*	0.198
x	44:02	x	11:01	x	7	1.2	13	5.6	5.0	(2.0-12.6)*	19	9.4	8.8	(3.6-21.1)*	0.128
03:01	07:02	x	x	06:02	46	7.9	22	9.6	1.2	(0.7-2.1)	17	8.4	1.1	(0.6-1.9)	0.657
03:01	07:02	x	15:01	06:02	46	7.9	22	9.6	1.2	(0.7-2.1)	17	8.5	1.1	(0.6-1.9)	0.669
03:01	07:02	07:02	15:01	x	49	8.2	24	10.3	1.3	(0.8-2.1)	17	8.5	1.0	(0.6-1.8)	0.533
03:01	07:02	07:02	x	06:02	45	7.7	22	9.6	1.3	(0.7-2.2)	17	8.5	1.1	(0.6-2.0)	0.680
03:01	x	07:02	15:01	06:02	45	7.7	22	9.6	1.3	(0.7-2.2)	17	8.5	1.1	(0.6-2.0)	0.680
03:01	07:02	07:02	15:01	06:02	45	7.7	22	9.6	1.3	(0.7-2.2)	17	8.5	1.1	(0.6-2.0)	0.692
02:01	07:02	07:02	x	06:02	45	7.7	24	10.5	1.4	(0.8-2.4)	20	10.0	1.3	(0.8-2.3)	0.858
02:01	07:02	07:02	15:01	06:02	45	7.7	24	10.5	1.4	(0.8-2.4)	20	10.1	1.3	(0.8-2.3)	0.872
02:01	07:02	07:02	15:01	x	46	7.7	24	10.3	1.4	(0.8-2.3)	20	10.0	1.3	(0.8-2.3)	0.930
02:01	x	07:02	15:01	06:02	46	7.9	24	10.5	1.4	(0.8-2.3)	21	10.5	1.4	(0.8-2.4)	0.993

					Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald <i>p</i> value
HLA-A	HLA-B	HLA-C	HLA-DRB1	HLA-DQB1	n	%	n	%	OR	95% CI	n	%	OR	95% CI	
x	07:02	07:02	15:01	06:02	90	15.5	49	21.5	1.5	(1.0-2.2)*	34	17.1	1.1	(0.7-1.7)	0.252
02:01	07:02	x	15:01	06:02	45	7.7	26	11.4	1.5	(0.9-2.6)	20	10.0	1.3	(0.8-2.3)	0.628
02:01	07:02	07:02	04:01	x	15	2.5	12	5.1	2.1	(1.0-4.5)	15	7.5	3.1	(1.5-6.5)*	0.311
03:01	07:02	07:02	x	03:01	16	2.8	13	5.7	2.1	(1.0-4.5)*	12	6.0	2.3	(1.0-4.9)*	0.896
x	07:02	07:02	07:01	06:02	13	2.2	13	5.7	2.6	(1.2-5.8)*	7	3.5	1.6	(0.6-4.1)	0.291
x	07:02	07:02	07:01	02:02	16	2.7	16	7.0	2.7	(1.3-5.4)*	8	4.0	1.5	(0.6-3.5)	0.185
x	07:02	07:02	15:01	03:01	16	2.7	18	7.9	3.0	(1.5-6.1)*	11	5.5	2.1	(0.9-4.5)	0.335
x	07:02	07:02	15:01	02:02	10	1.7	12	5.3	3.2	(1.4-7.5)*	5	2.5	1.5	(0.5-4.4)	0.156
02:01	07:02	x	15:01	03:01	10	1.7	12	5.3	3.2	(1.4-7.5)*	8	4.0	2.4	(0.9-6.1)	0.531
02:01	x	07:02	15:01	03:01	10	1.7	12	5.3	3.2	(1.4-7.5)*	8	4.0	2.4	(0.9-6.1)	0.538
02:01	07:02	07:02	15:01	03:01	10	1.7	12	5.3	3.2	(1.4-7.4)*	8	4.0	2.4	(0.9-6.1)	0.545
02:01	07:02	07:02	x	03:01	15	2.6	21	9.2	3.8	(1.9-7.6)*	16	8.0	3.3	(1.6-6.8)*	0.657
x	07:02	07:02	11:01	03:01	10	1.7	19	8.3	5.2	(2.4-11.4)*	6	3.0	1.8	(0.6-5.0)	0.025
x	07:02	07:02	11:01	x	10	1.7	19	8.1	5.2	(2.4-11.3)*	6	3.0	1.8	(0.6-5.0)	0.028
02:01	07:02	07:02	11:01	03:01	5	0.9	12	5.3	6.4	(2.2-18.4)*	2	1.0	1.2	(0.2-6.1)	0.027
02:01	07:02	07:02	11:01	x	5	0.8	12	5.1	6.4	(2.2-18.3)*	2	1.0	1.2	(0.2-6.2)	0.029
01:01	x	07:01	03:01	02:01	85	14.6	21	9.2	0.6	(0.4-1.0)*	19	9.5	0.6	(0.4-1.0)	0.918
01:01	08:01	07:01	x	02:01	85	14.6	21	9.2	0.6	(0.4-1.0)*	18	9.0	0.6	(0.3-1.0)*	0.940
01:01	08:01	07:01	03:01	02:01	85	14.6	21	9.2	0.6	(0.4-1.0)*	18	9.0	0.6	(0.3-1.0)*	0.953
01:01	08:01	x	03:01	02:01	86	14.8	21	9.2	0.6	(0.4-1.0)*	18	9.0	0.6	(0.3-1.0)*	0.927
01:01	08:01	07:01	03:01	x	88	14.8	22	9.4	0.6	(0.4-1.0)*	18	9.0	0.6	(0.3-1.0)*	0.885
x	08:01	07:01	03:01	02:01	107	18.4	28	12.3	0.6	(0.4-1.0)*	22	11.1	0.6	(0.3-0.9)*	0.695

ORs are arranged from lowest to highest for VSCC16 class I and II co-occurring alleles for three significant co-occurring allele associations. ORs are not adjusted. * indicates statistically significant associations, although rounding sometimes-caused confidence intervals to include 1.0.

The Wald *P* Value is shown for multiple comparisons and was based on all alleles at a locus.

Note: B*44:02, DRB1*11:01, DQB1*03:01 and B*07:02, C*07:02, DQB1*03:01 are shown in the table above to illustrate high OR seen in both VSCC16 and CXSCC16 results.

Appendix 1. HLA Results for VSCC16 and CXSCC16 class I and class II multilocus genotypes

					Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald <i>p</i> value
HLA-A	HLA-B	HLA-C	HLA-DRB1	HLA-DQB1	n	%	n	%	OR	95% CI	n	%	OR	95% CI	
01:01	08:01	07:01	03:01	02:01	85	14.6	21	9.2	0.6	(0.4-1.0)*	18	9.0	0.6	(0.3-1.0)*	0.953
02:01	08:01	07:01	03:01	02:01	44	7.6	10	4.4	0.6	(0.3-1.1)	10	5.0	0.6	(0.3-1.3)	0.755
03:01	07:02	07:02	15:01	06:02	45	7.7	22	9.6	1.3	(0.7-2.2)	17	8.5	1.1	(0.6-2.0)	0.692
02:01	07:02	07:02	15:01	06:02	45	7.7	24	10.5	1.4	(0.8-2.4)	20	10.1	1.3	(0.8-2.3)	0.872
02:01	44:02	05:01	04:01	03:01	27	4.6	21	9.2	2.1	(1.2-3.8)*	20	10.1	2.3	(1.3-4.2)*	0.769
29:02	44:03	16:01	07:01	02:02	20	3.4	16	7.0	2.1	(1.1-4.2)*	6	3.0	0.9	(0.3-2.2)	0.070
02:01	07:02	07:02	15:01	03:01	10	1.7	12	5.3	3.2	(1.4-7.4)*	8	4.0	2.4	(0.9-6.1)	0.545
02:01	07:02	07:02	11:01	03:01	5	0.9	12	5.3	6.4	(2.2-18.4)*	2	1.0	1.2	(0.2-6.1)	0.027
x	35:01	04:01	01:01	05:01	33	5.7	3	1.3	0.2	(0.1-0.7)*	12	6.0	1.1	(0.5-2.1)	0.016
x	08:01	07:01	03:01	02:01	107	18.4	28	12.3	0.6	(0.4-1.0)*	22	11.1	0.6	(0.3-0.9)*	0.695
01:01	08:01	07:01	03:01	x	88	14.8	22	9.4	0.6	(0.4-1.0)*	18	9.0	0.6	(0.3-1.0)*	0.885
01:01	08:01	x	03:01	02:01	86	14.8	21	9.2	0.6	(0.4-1.0)*	18	9.0	0.6	(0.3-1.0)*	0.927
01:01	08:01	07:01	x	02:01	85	14.6	21	9.2	0.6	(0.4-1.0)*	18	9.0	0.6	(0.3-1.0)*	0.940
01:01	x	07:01	03:01	02:01	85	14.6	21	9.2	0.6	(0.4-1.0)*	19	9.5	0.6	(0.4-1.0)	0.918
02:01	08:01	07:01	03:01	x	48	8.1	11	4.7	0.6	(0.3-1.1)	10	5.0	0.6	(0.3-1.2)	0.885
02:01	08:01	x	03:01	02:01	45	7.7	11	4.8	0.6	(0.3-1.2)	10	5.0	0.6	(0.3-1.3)	0.943
02:01	08:01	07:01	x	02:01	44	7.6	10	4.4	0.6	(0.3-1.1)	10	5.0	0.6	(0.3-1.3)	0.764
02:01	x	07:01	03:01	02:01	44	7.6	10	4.4	0.6	(0.3-1.1)	10	5.0	0.6	(0.3-1.3)	0.764
03:01	07:02	x	15:01	06:02	46	7.9	22	9.6	1.2	(0.7-2.1)	17	8.5	1.1	(0.6-1.9)	0.669
03:01	07:02	07:02	15:01	x	49	8.2	24	10.3	1.3	(0.8-2.1)	17	8.5	1.0	(0.6-1.8)	0.533
03:01	07:02	07:02	x	06:02	45	7.7	22	9.6	1.3	(0.7-2.2)	17	8.5	1.1	(0.6-2.0)	0.680
03:01	x	07:02	15:01	06:02	45	7.7	22	9.6	1.3	(0.7-2.2)	17	8.5	1.1	(0.6-2.0)	0.680
01:01	08:01	07:01	x	03:01	22	3.8	12	5.3	1.4	(0.7-2.9)	4	2.0	0.5	(0.2-1.5)	0.087
02:01	07:02	07:02	15:01	x	46	7.7	24	10.3	1.4	(0.8-2.3)	20	10.0	1.3	(0.8-2.3)	0.930
02:01	07:02	07:02	x	06:02	45	7.7	24	10.5	1.4	(0.8-2.4)	20	10.0	1.3	(0.8-2.3)	0.858
02:01	x	07:02	15:01	06:02	46	7.9	24	10.5	1.4	(0.8-2.3)	21	10.5	1.4	(0.8-2.4)	0.993

						Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald p value
HLA-A	HLA-B	HLA-C	HLA- DRB1	HLA- DQB1		n	%	n	%	OR	95% CI	n	%	OR	95% CI	
02:01	07:02	x	15:01	06:02		45	7.7	26	11.4	1.5	(0.9-2.6)	20	10.0	1.3	(0.8-2.3)	0.628
x	07:02	07:02	15:01	06:02		90	15.5	49	21.5	1.5	(1.0-2.2)*	34	17.1	1.1	(0.7-1.7)	0.252
02:01	44:02	05:01	x	03:01		38	6.5	25	11.0	1.8	(1.0-3.0)*	24	12.0	1.9	(1.1-3.3)*	0.737
02:01	44:02	x	04:01	03:01		29	5.0	21	9.2	1.9	(1.1-3.5)*	21	10.4	2.2	(1.2-4.0)*	0.667
x	44:02	05:01	04:01	03:01		30	5.2	22	9.6	2.0	(1.1-3.5)*	24	12.1	2.5	(1.4-4.4)*	0.424
x	44:03	16:01	07:01	02:02		29	5.0	22	9.6	2.0	(1.1-3.6)*	13	6.5	1.3	(0.7-2.6)	0.244
02:01	07:02	07:02	04:01	x		15	2.5	12	5.1	2.1	(1.0-4.5)	15	7.5	3.1	(1.5-6.5)*	0.311
02:01	x	05:01	04:01	03:01		27	4.6	21	9.2	2.1	(1.2-3.8)*	20	10.0	2.3	(1.3-4.2)*	0.782
03:01	07:02	07:02	x	03:01		16	2.8	13	5.7	2.1	(1.0-4.5)*	12	6.0	2.3	(1.0-4.9)*	0.896
29:02	44:03	16:01	07:01	x		20	3.4	16	6.8	2.1	(1.1-4.1)*	6	3.0	0.9	(0.4-2.2)	0.077
29:02	44:03	16:01	x	02:02		20	3.4	16	7.0	2.1	(1.1-4.2)*	6	3.0	0.9	(0.3-2.2)	0.068
29:02	44:03	x	07:01	02:02		20	3.4	16	7.0	2.1	(1.1-4.2)*	6	3.0	0.9	(0.3-2.2)	0.066
29:02	x	16:01	07:01	02:02		20	3.4	16	7.0	2.1	(1.1-4.2)*	6	3.0	0.9	(0.3-2.2)	0.068
02:01	44:02	05:01	04:01	x		28	4.7	23	9.8	2.2	(1.2-3.9)*	23	11.5	2.6	(1.5-4.7)*	0.573
02:01	44:02	x	15:01	06:02		13	2.2	12	5.3	2.4	(1.1-5.4)*	10	5.0	2.3	(1.0-5.3)	0.893
x	07:02	07:02	07:01	06:02		13	2.2	13	5.7	2.6	(1.2-5.8)*	7	3.5	1.6	(0.6-4.1)	0.291
02:01	40:01	03:04	x	03:02		12	2.1	12	5.3	2.6	(1.2-6.0)*	8	4.0	2.0	(0.8-4.9)	0.538
x	07:02	07:02	07:01	02:02		16	2.7	16	7.0	2.7	(1.3-5.4)*	8	4.0	1.5	(0.6-3.5)	0.185
x	07:02	07:02	15:01	03:01		16	2.7	18	7.9	3.0	(1.5-6.1)*	11	5.5	2.1	(0.9-4.5)	0.335
02:01	07:02	x	15:01	03:01		10	1.7	12	5.3	3.2	(1.4-7.5)*	8	4.0	2.4	(0.9-6.1)	0.531
02:01	x	07:02	15:01	03:01		10	1.7	12	5.3	3.2	(1.4-7.5)*	8	4.0	2.4	(0.9-6.1)	0.538
x	07:02	07:02	15:01	02:02		10	1.7	12	5.3	3.2	(1.4-7.5)*	5	2.5	1.5	(0.5-4.4)	0.156
02:01	07:02	07:02	x	03:01		15	2.6	21	9.2	3.8	(1.9-7.6)*	16	8.0	3.3	(1.6-6.8)*	0.657
x	07:02	07:02	11:01	03:01		10	1.7	19	8.3	5.2	(2.4-11.4)*	6	3.0	1.8	(0.6-5.0)	0.025
02:01	07:02	07:02	11:01	x		5	0.8	12	5.1	6.4	(2.2-18.3)*	2	1.0	1.2	(0.2-6.2)	0.029
02:01	x	x	13:01	06:03		34	5.8	3	1.3	0.2	(0.1-0.7)*	10	5.0	0.8	(0.4-1.7)	0.041
x	35:01	04:01	01:01	x		34	5.7	3	1.3	0.2	(0.1-0.7)*	12	6.0	1.1	(0.5-2.1)	0.015

						Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald p value
HLA-A	HLA-B	HLA-C	HLA- DRB1	HLA- DQB1		n	%	n	%	OR	95% CI	n	%	OR	95% CI	
x	35:01	x	01:01	05:01		33	5.7	3	1.3	0.2	(0.1-0.7)*	13	6.5	1.2	(0.6-2.2)	0.011
x	x	04:01	01:01	05:01		43	7.4	4	1.8	0.2	(0.1-0.6)*	13	6.5	0.9	(0.5-1.7)	0.019
x	35:01	04:01	x	05:01		35	6.0	4	1.8	0.3	(0.1-0.8)*	13	6.5	1.1	(0.6-2.1)	0.019
02:01	15:01	03:03	x	x		30	5.1	5	2.1	0.4	(0.2-1.1)	6	3.0	0.6	(0.2-1.4)	0.576
02:01	x	x	01:01	05:01		45	7.7	7	3.1	0.4	(0.2-0.9)*	12	5.9	0.8	(0.4-1.5)	0.155
03:01	x	x	01:01	05:01		35	6.0	5	2.2	0.4	(0.1-0.9)*	17	8.4	1.4	(0.8-2.6)	0.007
02:01	15:01	03:04	x	x		30	5.1	6	2.6	0.5	(0.2-1.2)	4	2.0	0.4	(0.1-1.1)	0.691
02:01	15:01	x	04:01	x		34	5.7	8	3.4	0.6	(0.3-1.3)	5	2.5	0.4	(0.2-1.1)	0.565
02:01	15:01	x	x	03:02		33	5.7	8	3.5	0.6	(0.3-1.3)	6	3.0	0.5	(0.2-1.2)	0.754
02:01	x	x	13:02	06:04		30	5.1	7	3.1	0.6	(0.3-1.4)	7	3.5	0.7	(0.3-1.5)	0.818
x	x	07:02	03:01	02:01		29	5.0	7	3.1	0.6	(0.3-1.4)	4	2.0	0.4	(0.1-1.1)	0.488
x	08:01	x	03:01	02:01		108	18.5	29	12.7	0.6	(0.4-1.0)*	22	10.9	0.5	(0.3-0.9)*	0.571
x	08:01	07:01	x	02:01		107	18.4	28	12.3	0.6	(0.4-1.0)*	22	11.0	0.5	(0.3-0.9)*	0.681
x	08:01	07:01	03:01	x		113	19.0	30	12.8	0.6	(0.4-1.0)*	23	11.5	0.6	(0.3-0.9)*	0.675
x	x	07:01	03:01	02:01		108	18.5	29	12.7	0.6	(0.4-1.0)*	23	11.5	0.6	(0.4-0.9)*	0.700
01:01	x	x	03:01	02:01		89	15.2	22	9.6	0.6	(0.4-1.0)*	20	9.9	0.6	(0.4-1.0)	0.930
01:01	08:01	x	03:01	x		89	14.9	22	9.4	0.6	(0.4-1.0)*	18	8.9	0.6	(0.3-1.0)*	0.859
01:01	x	07:01	03:01	x		88	14.8	22	9.4	0.6	(0.4-1.0)*	19	9.5	0.6	(0.4-1.0)	0.986
01:01	08:01	x	x	02:01		86	14.8	21	9.2	0.6	(0.4-1.0)*	18	8.9	0.6	(0.3-1.0)*	0.914
01:01	x	07:01	x	02:01		85	14.6	21	9.2	0.6	(0.4-1.0)*	19	9.5	0.6	(0.4-1.0)	0.931
02:01	x	x	03:01	02:01		60	10.3	15	6.6	0.6	(0.3-1.1)	13	6.4	0.6	(0.3-1.1)	0.952
02:01	08:01	x	03:01	x		49	8.2	12	5.1	0.6	(0.3-1.2)	10	5.0	0.6	(0.3-1.2)	0.933
02:01	x	07:01	03:01	x		48	8.1	11	4.7	0.6	(0.3-1.1)	10	5.0	0.6	(0.3-1.2)	0.894
02:01	08:01	x	x	02:01		45	7.7	11	4.8	0.6	(0.3-1.2)	10	5.0	0.6	(0.3-1.3)	0.952
02:01	x	07:01	x	02:01		44	7.6	10	4.4	0.6	(0.3-1.1)	10	5.0	0.6	(0.3-1.3)	0.773
x	15:01	x	04:01	03:02		30	5.1	8	3.5	0.7	(0.3-1.5)	8	4.0	0.8	(0.3-1.7)	0.797
x	x	07:01	15:01	06:02		32	5.5	9	3.9	0.7	(0.3-1.5)	8	4.0	0.7	(0.3-1.6)	0.978
02:01	08:01	07:01	x	x		54	9.1	16	6.8	0.7	(0.4-1.3)	12	6.0	0.6	(0.3-1.2)	0.713

						Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald p value
HLA-A	HLA-B	HLA-C	HLA- DRB1	HLA- DQB1		n	%	n	%	OR	95% CI	n	%	OR	95% CI	
03:01	x	x	03:01	02:01		35	6.0	11	4.8	0.8	(0.4-1.6)	4	2.0	0.3	(0.1-0.9)*	0.120
01:01	08:01	07:01	x	x		110	18.5	35	15.0	0.8	(0.5-1.2)	22	10.9	0.5	(0.3-0.9)*	0.218
02:01	x	03:04	04:01	x		31	5.2	10	4.3	0.8	(0.4-1.7)	12	6.0	1.2	(0.6-2.3)	0.423
01:01	x	x	15:01	06:02		42	7.2	15	6.6	0.9	(0.5-1.7)	14	6.9	1.0	(0.5-1.8)	0.885
03:01	07:02	07:02	x	x		75	12.6	33	14.1	1.1	(0.7-1.8)	33	16.4	1.4	(0.9-2.1)	0.503
02:01	x	03:04	x	03:02		32	5.5	14	6.1	1.1	(0.6-2.1)	12	6.0	1.1	(0.6-2.2)	0.941
01:01	07:02	07:02	x	x		36	6.1	17	7.3	1.2	(0.7-2.2)	12	6.0	1.0	(0.5-1.9)	0.590
01:01	x	07:01	x	03:01		25	4.3	12	5.3	1.2	(0.6-2.5)	6	3.0	0.7	(0.3-1.7)	0.246
02:01	x	06:02	07:01	x		31	5.2	15	6.4	1.2	(0.7-2.4)	12	6.0	1.2	(0.6-2.3)	0.850
03:01	07:02	x	15:01	x		50	8.4	24	10.3	1.2	(0.7-2.1)	17	8.4	1.0	(0.6-1.8)	0.512
03:01	07:02	x	x	06:02		46	7.9	22	9.6	1.2	(0.7-2.1)	17	8.4	1.1	(0.6-1.9)	0.657
03:01	x	x	15:01	06:02		54	9.2	25	11.0	1.2	(0.7-2.0)	21	10.4	1.1	(0.7-1.9)	0.849
x	57:01	06:02	07:01	x		29	4.9	14	6.0	1.2	(0.6-2.4)	13	6.5	1.4	(0.7-2.7)	0.824
02:01	40:01	03:04	x	x		50	8.4	23	9.8	1.2	(0.7-2.0)	19	9.5	1.1	(0.7-2.0)	0.895
02:01	x	07:02	15:01	x		47	7.9	24	10.3	1.3	(0.8-2.2)	21	10.4	1.4	(0.8-2.3)	0.948
03:01	x	07:02	15:01	x		49	8.2	24	10.3	1.3	(0.8-2.1)	17	8.5	1.0	(0.6-1.8)	0.523
03:01	x	07:02	x	06:02		45	7.7	22	9.6	1.3	(0.7-2.2)	17	8.5	1.1	(0.6-2.0)	0.669
x	08:01	07:01	x	03:01		31	5.3	15	6.6	1.3	(0.7-2.4)	7	3.5	0.6	(0.3-1.5)	0.157
x	x	06:02	07:01	03:03		24	4.1	12	5.3	1.3	(0.6-2.6)	12	6.0	1.5	(0.7-3.0)	0.741
02:01	x	x	04:01	03:02		45	7.7	22	9.6	1.3	(0.7-2.2)	15	7.4	1.0	(0.5-1.8)	0.413
01:01	08:01	x	x	03:01		22	3.8	12	5.3	1.4	(0.7-2.9)	5	2.5	0.6	(0.2-1.7)	0.148
02:01	x	07:02	x	06:02		46	7.9	24	10.5	1.4	(0.8-2.3)	21	10.4	1.4	(0.8-2.3)	0.979
02:01	x	x	07:01	02:02		52	8.9	28	12.3	1.4	(0.9-2.3)	21	10.4	1.2	(0.7-2.0)	0.540
02:01	x	x	15:01	06:02		75	12.8	40	17.5	1.4	(1.0-2.2)	33	16.3	1.3	(0.8-2.1)	0.739
03:01	08:01	07:01	x	x		30	5.1	16	6.8	1.4	(0.7-2.6)	8	4.0	0.8	(0.4-1.7)	0.198
02:01	07:02	07:02	x	x		68	11.4	37	15.8	1.5	(0.9-2.2)	36	17.9	1.7	(1.1-2.6)*	0.559
02:01	07:02	x	15:01	x		46	7.7	26	11.1	1.5	(0.9-2.5)	20	9.9	1.3	(0.8-2.3)	0.682
02:01	07:02	x	x	06:02		45	7.7	26	11.4	1.5	(0.9-2.6)	20	9.9	1.3	(0.8-2.3)	0.615

						Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald p value
HLA-A	HLA-B	HLA-C	HLA- DRB1	HLA- DQB1		n	%	n	%	OR	95% CI	n	%	OR	95% CI	
x	07:02	07:02	15:01	x		94	15.8	51	21.8	1.5	(1.0-2.2)*	34	17.0	1.1	(0.7-1.7)	0.211
x	07:02	07:02	x	06:02		90	15.5	49	21.5	1.5	(1.0-2.2)*	34	17.0	1.1	(0.7-1.7)	0.242
x	44:02	05:01	x	03:01		47	8.1	27	11.8	1.5	(0.9-2.5)	31	15.5	2.1	(1.3-3.4)*	0.271
x	x	07:02	15:01	06:02		92	15.8	49	21.5	1.5	(1.0-2.2)	36	18.0	1.2	(0.8-1.8)	0.367
02:01	44:02	05:01	x	x		62	10.4	34	14.5	1.5	(0.9-2.3)	34	16.9	1.7	(1.1-2.7)*	0.495
x	07:02	07:02	04:01	x		21	3.5	13	5.6	1.6	(0.8-3.3)	19	9.5	2.9	(1.5-5.5)*	0.121
x	07:02	x	15:01	06:02		91	15.6	51	22.4	1.6	(1.1-2.3)*	34	16.9	1.1	(0.7-1.7)	0.158
x	x	05:01	03:01	02:01		25	4.3	15	6.6	1.6	(0.8-3.0)	8	4.0	0.9	(0.4-2.1)	0.242
01:01	x	06:02	07:01	x		20	3.4	13	5.6	1.7	(0.8-3.5)	9	4.5	1.3	(0.6-3.0)	0.610
01:01	x	x	07:01	02:02		26	4.5	17	7.5	1.7	(0.9-3.3)	8	4.0	0.9	(0.4-2.0)	0.128
01:01	x	x	04:01	03:02		18	3.1	12	5.3	1.7	(0.8-3.7)	9	4.5	1.5	(0.6-3.3)	0.698
02:01	44:02	x	x	03:01		43	7.4	28	12.3	1.8	(1.1-2.9)*	31	15.3	2.3	(1.4-3.7)*	0.357
02:01	x	05:01	x	03:01		38	6.5	25	11.0	1.8	(1.0-3.0)*	25	12.4	2.0	(1.2-3.5)*	0.635
02:01	x	x	04:01	03:01		43	7.4	28	12.3	1.8	(1.1-2.9)*	29	14.4	2.1	(1.3-3.5)*	0.527
x	44:02	x	04:01	03:01		32	5.5	22	9.6	1.8	(1.0-3.2)*	26	12.9	2.6	(1.5-4.4)*	0.283
x	x	06:02	07:01	02:02		32	5.5	22	9.6	1.8	(1.0-3.2)*	15	7.5	1.4	(0.7-2.6)	0.431
2402	x	x	15:01	06:02		18	3.1	13	5.7	1.9	(0.9-3.9)	12	5.9	2.0	(0.9-4.2)	0.916
x	x	06:02	15:01	06:02		21	3.6	15	6.6	1.9	(1.0-3.7)	5	2.5	0.7	(0.3-1.8)	0.055
x	40:01	03:04	x	03:02		22	3.8	16	7.0	1.9	(1.0-3.7)	12	6.0	1.6	(0.8-3.3)	0.671
02:01	07:02	x	04:01	x		16	2.7	12	5.1	2.0	(0.9-4.2)	15	7.4	2.9	(1.4-6.0)*	0.324
03:01	07:02	x	x	03:01		17	2.9	13	5.7	2.0	(1.0-4.2)	13	6.4	2.3	(1.1-4.8)*	0.750
x	44:03	16:01	x	02:02		29	5.0	22	9.6	2.0	(1.1-3.6)*	13	6.5	1.3	(0.7-2.6)	0.238
x	x	05:01	04:01	03:01		30	5.1	22	9.6	2.0	(1.1-3.5)*	24	12.0	2.5	(1.4-4.4)*	0.434
x	x	16:01	07:01	02:02		30	5.1	22	9.6	2.0	(1.1-3.5)*	13	6.5	1.3	(0.7-2.5)	0.238
x	44:02	05:01	04:01	x		32	5.4	24	10.3	2.0	(1.2-3.5)*	27	13.5	2.7	(1.6-4.7)*	0.297
03:01	x	07:02	x	03:01		16	2.7	13	5.7	2.1	(1.0-4.5)*	12	6.0	2.2	(1.0-4.8)*	0.906
29:02	44:03	16:01	x	x		28	4.7	22	9.4	2.1	(1.2-3.7)*	7	3.5	0.7	(0.3-1.7)	0.018
29:02	44:03	x	07:01	x		20	3.4	16	6.8	2.1	(1.1-4.2)*	6	3.0	0.9	(0.3-2.2)	0.074

						Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald p value
HLA-A	HLA-B	HLA-C	HLA- DRB1	HLA- DQB1		n	%	n	%	OR	95% CI	n	%	OR	95% CI	
29:02	44:03	x	x	02:02		20	3.4	16	7.0	2.1	(1.1-4.2)*	6	3.0	0.9	(0.3-2.2)	0.065
29:02	x	16:01	07:01	x		20	3.4	16	6.8	2.1	(1.1-4.1)*	6	3.0	0.9	(0.4-2.2)	0.075
29:02	x	16:01	x	02:02		20	3.4	16	7.0	2.1	(1.1-4.2)*	6	3.0	0.9	(0.3-2.2)	0.066
29:02	x	x	07:01	02:02		22	3.8	17	7.5	2.1	(1.1-4.0)*	7	3.5	0.9	(0.4-2.2)	0.079
x	44:02	x	15:01	06:02		18	3.1	14	6.1	2.1	(1.0-4.2)*	15	7.5	2.5	(1.3-5.1)*	0.587
x	44:03	16:01	07:01	x		29	4.9	23	9.8	2.1	(1.2-3.8)*	13	6.5	1.4	(0.7-2.7)	0.213
x	x	04:01	07:01	02:02		15	2.6	12	5.3	2.1	(1.0-4.6)	11	5.5	2.2	(1.0-4.9)	0.914
x	x	05:01	15:01	06:02		16	2.7	13	5.7	2.1	(1.0-4.5)*	12	6.0	2.3	(1.1-4.9)*	0.896
02:01	x	07:02	04:01	x		16	2.7	13	5.6	2.1	(1.0-4.5)*	15	7.5	2.9	(1.4-6.0)*	0.421
x	07:02	07:02	07:01	x		24	4.0	20	8.5	2.2	(1.2-4.1)*	15	7.5	1.9	(1.0-3.8)	0.690
x	44:03	x	07:01	02:02		39	6.7	31	13.6	2.2	(1.3-3.6)*	19	9.5	1.5	(0.8-2.6)	0.184
02:01	44:02	x	04:01	x		30	5.0	24	10.3	2.2	(1.2-3.8)*	24	11.9	2.5	(1.4-4.5)*	0.589
02:01	x	05:01	04:01	x		28	4.7	23	9.8	2.2	(1.2-3.9)*	23	11.4	2.6	(1.5-4.7)*	0.586
02:01	44:02	x	x	06:02		14	2.4	12	5.3	2.3	(1.0-5.0)*	10	5.0	2.1	(0.9-4.8)	0.883
02:01	44:02	x	15:01	x		13	2.2	12	5.1	2.4	(1.1-5.4)*	10	5.0	2.3	(1.0-5.4)*	0.933
x	x	07:02	07:01	02:02		18	3.1	16	7.0	2.4	(1.2-4.7)*	9	4.5	1.5	(0.7-3.3)	0.272
02:01	x	x	15:01	03:01		20	3.4	19	8.3	2.6	(1.3-4.9)*	10	5.0	1.5	(0.7-3.2)	0.167
02:01	40:01	x	x	03:02		12	2.1	12	5.3	2.6	(1.2-6.0)*	8	4.0	2.0	(0.8-4.9)	0.523
x	07:02	07:02	x	02:02		16	2.7	16	7.0	2.7	(1.3-5.4)*	8	4.0	1.5	(0.6-3.5)	0.181
x	07:02	x	07:01	02:02		16	2.7	16	7.0	2.7	(1.3-5.5)*	8	4.0	1.5	(0.6-3.5)	0.177
x	07:02	x	07:01	06:02		13	2.2	13	5.7	2.7	(1.2-5.8)*	7	3.5	1.6	(0.6-4.0)	0.281
x	51:01	x	15:01	06:02		13	2.2	13	5.7	2.7	(1.2-5.8)*	4	2.0	0.9	(0.3-2.8)	0.060
x	x	07:02	07:01	06:02		13	2.2	13	5.7	2.7	(1.2-5.8)*	8	4.0	1.8	(0.7-4.5)	0.418
x	x	07:01	11:01	03:01		11	1.9	12	5.3	2.9	(1.3-6.6)*	3	1.5	0.8	(0.2-2.9)	0.047
x	x	07:02	15:01	03:01		17	2.9	18	7.9	2.9	(1.4-5.6)*	11	5.5	1.9	(0.9-4.2)	0.328
x	07:02	x	15:01	03:01		16	2.7	18	7.9	3.0	(1.5-6.1)*	11	5.5	2.1	(0.9-4.5)	0.321
x	07:02	07:02	x	03:01		30	5.2	34	14.9	3.2	(1.9-5.4)*	23	11.5	2.4	(1.4-4.2)*	0.301
x	07:02	x	15:01	02:02		10	1.7	12	5.3	3.2	(1.4-7.5)*	5	2.5	1.5	(0.5-4.3)	0.151

						Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald p value
HLA-A	HLA-B	HLA-C	HLA- DRB1	HLA- DQB1		n	%	n	%	OR	95% CI	n	%	OR	95% CI	
x	x	02:02	11:01	03:01		10	1.7	12	5.3	3.2	(1.4-7.5)*	5	2.5	1.5	(0.5-4.4)	0.153
x	x	07:02	15:01	02:02		10	1.7	12	5.3	3.2	(1.4-7.5)*	6	3.0	1.8	(0.6-4.9)	0.250
03:01	x	x	11:01	03:01		13	2.2	16	7.0	3.3	(1.6-7.0)*	11	5.4	2.5	(1.1-5.7)*	0.504
02:01	x	x	11:01	03:01		22	3.8	27	11.8	3.4	(1.9-6.2)*	14	6.9	1.9	(1.0-3.8)	0.087
02:01	x	02:02	x	03:01		9	1.5	12	5.3	3.5	(1.5-8.5)*	5	2.5	1.6	(0.5-4.9)	0.151
02:01	x	07:02	x	03:01		16	2.7	21	9.2	3.6	(1.8-7.0)*	16	8.0	3.1	(1.5-6.2)*	0.646
02:01	07:02	x	x	03:01		15	2.6	21	9.2	3.8	(1.9-7.6)*	16	7.9	3.3	(1.6-6.7)*	0.634
01:01	x	x	11:01	03:01		9	1.5	15	6.6	4.5	(1.9-10.4)*	3	1.5	1.0	(0.3-3.6)	0.016
x	07:02	x	11:01	03:01		11	1.9	19	8.3	4.7	(2.2-10.1)*	7	3.5	1.9	(0.7-4.9)	0.041
x	x	07:02	11:01	03:01		11	1.9	19	8.3	4.7	(2.2-10.1)*	6	3.0	1.6	(0.6-4.4)	0.024
x	44:02	x	11:01	03:01		7	1.2	13	5.7	5.0	(2.0-12.7)*	18	9.0	8.1	(3.3-19.7)*	0.198
x	07:02	07:02	11:01	x		10	1.7	19	8.1	5.2	(2.4-11.3)*	6	3.0	1.8	(0.6-5.0)	0.028
02:01	x	x	13:01	x		36	6.0	3	1.3	0.2	(0.1-0.7)*	10	4.9	0.8	(0.4-1.7)	0.038
02:01	x	x	x	06:03		36	6.2	3	1.3	0.2	(0.1-0.7)*	10	4.9	0.8	(0.4-1.6)	0.041
x	35:01	x	01:01	x		34	5.7	3	1.3	0.2	(0.1-0.7)*	13	6.4	1.1	(0.6-2.2)	0.010
x	x	04:01	01:01	x		44	7.4	4	1.7	0.2	(0.1-0.6)*	14	7.0	0.9	(0.5-1.8)	0.011
x	x	x	13:01	06:03		68	10.9	6	2.6	0.2	(0.1-0.5)*	15	6.4	0.6	(0.3-1.0)	0.058
x	15:01	03:03	x	x		44	7.4	6	2.6	0.3	(0.1-0.8)*	8	4.0	0.5	(0.2-1.1)	0.408
x	35:01	x	x	05:01		35	6.0	4	1.8	0.3	(0.1-0.8)*	14	6.9	1.2	(0.6-2.2)	0.013
x	x	04:01	x	05:01		46	7.9	6	2.6	0.3	(0.1-0.7)*	14	7.0	0.9	(0.5-1.6)	0.041
11:01	x	04:01	x	x		32	5.4	4	1.7	0.3	(0.1-0.9)*	10	5.0	0.9	(0.4-1.9)	0.067
02:01	15:01	x	x	x		66	11.1	10	4.3	0.4	(0.2-0.7)*	11	5.4	0.5	(0.2-0.9)*	0.578
02:01	x	x	01:01	x		45	7.5	8	3.4	0.4	(0.2-0.9)*	13	6.4	0.8	(0.4-1.6)	0.152
02:01	x	x	x	05:01		57	9.8	9	3.9	0.4	(0.2-0.8)*	17	8.4	0.8	(0.5-1.5)	0.059
03:01	x	x	01:01	x		36	6.0	6	2.6	0.4	(0.2-1.0)*	17	8.4	1.4	(0.8-2.6)	0.010
03:01	x	x	x	05:01		39	6.7	6	2.6	0.4	(0.2-0.9)*	22	10.8	1.7	(1.0-2.9)	0.001
x	35:01	04:01	x	x		62	10.4	11	4.7	0.4	(0.2-0.8)*	21	10.4	1.0	(0.6-1.7)	0.026

						Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald p value
HLA-A	HLA-B	HLA-C	HLA- DRB1	HLA- DQB1		n	%	n	%	OR	95% CI	n	%	OR	95% CI	
x	x	x	01:01	05:01		98	15.8	17	7.5	0.4	(0.3-0.7)*	39	16.7	1.1	(0.7-1.6)	0.003
03:01	x	x	x	03:02		37	6.3	6	2.6	0.4	(0.2-1.0)*	8	3.9	0.6	(0.3-1.3)	0.447
03:01	x	x	04:01	x		33	5.5	6	2.6	0.4	(0.2-1.1)	17	8.4	1.6	(0.9-2.9)	0.010
02:01	x	x	13:02	x		36	6.0	7	3.0	0.5	(0.2-1.1)	8	3.9	0.6	(0.3-1.4)	0.588
x	15:01	03:04	x	x		32	5.4	6	2.6	0.5	(0.2-1.1)	6	3.0	0.5	(0.2-1.3)	0.789
x	15:01	x	04:01	x		39	6.5	8	3.4	0.5	(0.2-1.1)	8	4.0	0.6	(0.3-1.3)	0.764
x	15:01	x	x	03:02		38	6.5	8	3.5	0.5	(0.2-1.1)	10	5.0	0.7	(0.4-1.5)	0.458
x	x	03:04	x	03:01		33	5.7	6	2.6	0.5	(0.2-1.1)	10	5.0	0.9	(0.4-1.8)	0.208
x	x	07:02	x	05:01		29	5.0	6	2.6	0.5	(0.2-1.3)	16	8.0	1.7	(0.9-3.1)	0.017
03:01	x	04:01	x	x		37	6.2	7	3.0	0.5	(0.2-1.1)	13	6.4	1.0	(0.5-2.0)	0.094
02:01	27:05	x	x	x		31	5.2	7	3.0	0.6	(0.2-1.3)	5	2.5	0.5	(0.2-1.2)	0.736
x	x	x	13:02	06:04		46	7.4	10	4.4	0.6	(0.3-1.2)	9	3.9	0.5	(0.2-1.0)	0.778
x	x	07:02	x	02:01		29	5.0	7	3.1	0.6	(0.3-1.4)	4	2.0	0.4	(0.1-1.1)	0.483
x	08:01	x	03:01	x		114	19.1	31	13.2	0.6	(0.4-1.0)*	23	11.4	0.5	(0.3-0.9)*	0.557
x	08:01	x	x	02:01		108	18.5	29	12.7	0.6	(0.4-1.0)*	22	10.9	0.5	(0.3-0.9)*	0.559
x	x	x	03:01	02:01		150	24.1	38	16.7	0.6	(0.4-0.9)*	38	16.3	0.6	(0.4-0.9)*	0.918
x	x	07:01	03:01	x		114	19.1	31	13.2	0.6	(0.4-1.0)*	24	11.9	0.6	(0.4-0.9)*	0.683
x	x	07:01	x	02:01		108	18.5	29	12.7	0.6	(0.4-1.0)*	23	11.4	0.6	(0.4-0.9)*	0.686
01:01	x	x	03:01	x		93	15.6	23	9.8	0.6	(0.4-1.0)*	20	9.9	0.6	(0.4-1.0)*	0.994
01:01	x	x	x	02:01		89	15.2	22	9.6	0.6	(0.4-1.0)*	20	9.9	0.6	(0.4-1.0)	0.943
02:01	x	x	03:01	x		64	10.7	16	6.8	0.6	(0.3-1.1)	13	6.4	0.6	(0.3-1.1)	0.856
02:01	x	x	x	02:01		60	10.3	15	6.6	0.6	(0.3-1.1)	13	6.4	0.6	(0.3-1.1)	0.941
x	x	07:01	x	03:02		31	5.3	8	3.5	0.6	(0.3-1.4)	7	3.5	0.6	(0.3-1.5)	0.988
02:01	x	x	x	06:04		30	5.1	7	3.1	0.6	(0.3-1.4)	7	3.4	0.7	(0.3-1.5)	0.825
x	27:05	02:02	x	x		31	5.2	9	3.8	0.7	(0.3-1.6)	3	1.5	0.3	(0.1-0.9)*	0.150
x	x	07:01	15:01	x		34	5.7	10	4.3	0.7	(0.4-1.5)	9	4.5	0.8	(0.4-1.6)	0.917
x	x	07:01	x	06:02		33	5.7	9	3.9	0.7	(0.3-1.5)	8	4.0	0.7	(0.3-1.5)	0.986
03:01	x	x	03:01	x		37	6.2	11	4.7	0.7	(0.4-1.5)	4	2.0	0.3	(0.1-0.9)*	0.129

						Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald p value
HLA-A	HLA-B	HLA-C	HLA- DRB1	HLA- DQB1		n	%	n	%	OR	95% CI	n	%	OR	95% CI	
01:01	x	07:01	x	x		118	19.8	36	15.4	0.7	(0.5-1.1)	28	13.9	0.7	(0.4-1.0)	0.654
02:01	x	07:01	x	x		72	12.1	20	8.5	0.7	(0.4-1.1)	18	8.9	0.7	(0.4-1.2)	0.893
03:01	x	x	x	02:01		35	6.0	11	4.8	0.8	(0.4-1.6)	4	2.0	0.3	(0.1-0.9)*	0.118
x	08:01	07:01	x	x		141	23.7	47	20.1	0.8	(0.6-1.2)	30	14.9	0.6	(0.4-0.9)*	0.161
01:01	08:01	x	x	x		111	18.6	35	15.0	0.8	(0.5-1.2)	23	11.3	0.6	(0.3-0.9)*	0.266
02:01	08:01	x	x	x		55	9.2	17	7.3	0.8	(0.4-1.4)	12	5.9	0.6	(0.3-1.2)	0.571
x	x	x	0404	03:02		55	8.8	16	7.0	0.8	(0.4-1.4)	15	6.4	0.7	(0.4-1.3)	0.804
02:01	x	03:04	x	x		81	13.6	25	10.7	0.8	(0.5-1.2)	25	12.4	0.9	(0.6-1.4)	0.581
x	x	03:04	04:01	x		36	6.0	12	5.1	0.8	(0.4-1.6)	15	7.5	1.3	(0.7-2.3)	0.317
01:01	x	x	15:01	x		44	7.4	15	6.4	0.9	(0.5-1.6)	14	6.9	0.9	(0.5-1.7)	0.839
01:01	x	x	x	05:01		29	5.0	10	4.4	0.9	(0.4-1.8)	11	5.4	1.1	(0.5-2.2)	0.620
01:01	x	x	x	06:02		42	7.2	15	6.6	0.9	(0.5-1.7)	14	6.9	1.0	(0.5-1.8)	0.895
02:01	x	06:02	x	x		59	9.9	24	10.3	1.0	(0.6-1.7)	22	10.9	1.1	(0.7-1.9)	0.830
02:01	x	04:01	x	x		38	6.4	15	6.4	1.0	(0.5-1.9)	7	3.5	0.5	(0.2-1.2)	0.168
02:01	x	03:03	x	x		39	6.6	16	6.8	1.0	(0.6-1.9)	8	4.0	0.6	(0.3-1.3)	0.194
02:01	x	02:02	x	x		34	5.7	13	5.6	1.0	(0.5-1.9)	12	5.9	1.0	(0.5-2.1)	0.863
x	x	03:04	x	03:02		44	7.5	18	7.9	1.0	(0.6-1.9)	18	9.0	1.2	(0.7-2.1)	0.693
03:01	07:02	x	x	x		78	13.1	33	14.1	1.1	(0.7-1.7)	34	16.7	1.3	(0.9-2.1)	0.444
x	07:02	x	x	03:02		29	5.0	12	5.3	1.1	(0.5-2.1)	13	6.4	1.3	(0.7-2.6)	0.605
x	x	06:02	x	03:03		28	4.8	12	5.3	1.1	(0.5-2.2)	13	6.5	1.4	(0.7-2.7)	0.596
x	x	07:01	07:01	x		34	5.7	14	6.0	1.1	(0.6-2.0)	9	4.5	0.8	(0.4-1.6)	0.486
x	x	07:01	x	03:01		47	8.1	20	8.8	1.1	(0.6-1.9)	13	6.5	0.8	(0.4-1.5)	0.373
02:01	x	x	x	03:02		75	12.8	32	14.0	1.1	(0.7-1.7)	24	11.8	0.9	(0.6-1.5)	0.496
x	40:01	03:04	x	x		72	12.1	30	12.8	1.1	(0.7-1.7)	25	12.4	1.0	(0.6-1.7)	0.905
01:01	x	07:02	x	x		38	6.4	17	7.3	1.1	(0.6-2.1)	13	6.4	1.0	(0.5-1.9)	0.733
02:01	40:01	x	x	x		52	8.7	23	9.8	1.1	(0.7-1.9)	19	9.4	1.1	(0.6-1.9)	0.868
01:01	x	x	x	03:02		34	5.8	14	6.1	1.1	(0.6-2.0)	13	6.4	1.1	(0.6-2.1)	0.910
03:01	x	07:02	x	x		77	12.9	34	14.5	1.1	(0.7-1.8)	34	16.8	1.4	(0.9-2.1)	0.509

						Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald p value
HLA-A	HLA-B	HLA-C	HLA- DRB1	HLA- DQB1		n	%	n	%	OR	95% CI	n	%	OR	95% CI	
x	x	07:02	x	03:02		30	5.1	13	5.7	1.1	(0.6-2.2)	14	7.0	1.4	(0.7-2.7)	0.591
x	44:02	05:01	x	x		84	14.1	37	15.8	1.1	(0.8-1.7)	44	21.9	1.7	(1.1-2.6)*	0.106
01:01	07:02	x	x	x		36	6.0	17	7.3	1.2	(0.7-2.2)	13	6.4	1.1	(0.6-2.0)	0.723
02:01	x	x	07:01	x		72	12.1	33	14.1	1.2	(0.8-1.9)	31	15.3	1.3	(0.8-2.1)	0.731
03:01	x	x	x	06:02		54	9.2	25	11.0	1.2	(0.7-2.0)	21	10.3	1.1	(0.7-1.9)	0.835
x	57:01	x	07:01	x		29	4.9	14	6.0	1.2	(0.6-2.4)	16	7.9	1.7	(0.9-3.2)	0.427
x	x	x	07:01	03:03		34	5.5	15	6.6	1.2	(0.7-2.3)	28	12.0	2.4	(1.4-4.0)*	0.048
x	x	x	04:01	03:02		74	11.9	31	13.6	1.2	(0.7-1.8)	28	12.0	1.0	(0.6-1.6)	0.612
01:01	x	06:02	x	x		40	6.7	20	8.5	1.3	(0.7-2.3)	15	7.4	1.1	(0.6-2.1)	0.668
03:01	x	x	15:01	x		58	9.7	28	12.0	1.3	(0.8-2.0)	21	10.3	1.1	(0.6-1.8)	0.593
2402	x	x	x	03:01		29	5.0	14	6.1	1.3	(0.6-2.4)	13	6.4	1.3	(0.7-2.6)	0.910
x	08:01	x	x	03:01		31	5.3	15	6.6	1.3	(0.7-2.4)	8	4.0	0.7	(0.3-1.6)	0.233
x	57:01	06:02	x	x		39	6.6	19	8.1	1.3	(0.7-2.2)	18	9.0	1.4	(0.8-2.5)	0.756
03:01	x	07:01	x	x		37	6.2	19	8.1	1.3	(0.7-2.4)	13	6.4	1.0	(0.5-2.0)	0.502
02:01	x	07:02	x	x		78	13.1	39	16.7	1.3	(0.9-2.0)	37	18.3	1.5	(1.0-2.3)	0.651
02:01	x	05:01	x	x		70	11.8	35	15.0	1.3	(0.9-2.0)	36	17.8	1.6	(1.0-2.5)*	0.420
02:01	x	x	x	02:02		52	8.9	28	12.3	1.4	(0.9-2.3)	21	10.3	1.2	(0.7-2.0)	0.528
03:01	x	x	07:01	x		26	4.4	14	6.0	1.4	(0.7-2.7)	16	7.9	1.9	(1.0-3.6)	0.435
x	x	05:01	03:01	x		27	4.5	15	6.4	1.4	(0.8-2.8)	8	4.0	0.9	(0.4-2.0)	0.263
x	x	x	04:01	06:02		24	3.9	12	5.3	1.4	(0.7-2.8)	14	6.0	1.6	(0.8-3.1)	0.729
03:01	08:01	x	x	x		30	5.0	16	6.8	1.4	(0.7-2.6)	9	4.4	0.9	(0.4-1.9)	0.284
x	x	x	04:01	03:01		70	11.3	34	14.9	1.4	(0.9-2.1)	42	18.0	1.7	(1.1-2.6)*	0.368
02:01	44:02	x	x	x		72	12.1	38	16.2	1.4	(0.9-2.2)	44	21.7	2.0	(1.3-3.0)*	0.148
02:01	07:02	x	x	x		70	11.7	39	16.7	1.5	(1.0-2.3)	36	17.7	1.6	(1.0-2.5)*	0.768
02:01	x	x	15:01	x		76	12.7	41	17.5	1.5	(1.0-2.2)	33	16.3	1.3	(0.9-2.1)	0.725
02:01	x	x	x	06:02		77	13.2	42	18.4	1.5	(1.0-2.2)	33	16.3	1.3	(0.8-2.0)	0.554
03:01	x	x	x	03:01		42	7.2	24	10.5	1.5	(0.9-2.6)	25	12.3	1.8	(1.1-3.1)*	0.560
x	07:02	07:02	x	x		146	24.5	77	32.9	1.5	(1.1-2.1)*	63	31.3	1.4	(1.0-2.0)	0.728

						Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald p value
HLA-A	HLA-B	HLA-C	HLA- DRB1	HLA- DQB1		n	%	n	%	OR	95% CI	n	%	OR	95% CI	
x	07:02	x	04:01	x		22	3.7	13	5.6	1.5	(0.8-3.1)	19	9.4	2.7	(1.4-5.1)*	0.128
x	07:02	x	15:01	x		95	15.9	53	22.6	1.5	(1.1-2.3)*	34	16.8	1.1	(0.7-1.6)	0.131
x	x	07:02	15:01	x		96	16.1	51	21.8	1.5	(1.0-2.1)	36	17.9	1.1	(0.7-1.7)	0.313
x	x	07:02	x	06:02		92	15.8	49	21.5	1.5	(1.0-2.2)	36	17.9	1.2	(0.8-1.8)	0.354
x	x	x	15:01	06:02		158	25.4	77	33.8	1.5	(1.1-2.1)*	62	26.6	1.1	(0.8-1.5)	0.094
02:01	x	x	04:01	x		78	13.1	43	18.4	1.5	(1.0-2.3)	40	19.7	1.6	(1.1-2.5)*	0.724
01:01	x	x	07:01	x		42	7.0	25	10.7	1.6	(0.9-2.7)	15	7.4	1.1	(0.6-1.9)	0.236
x	07:02	x	x	06:02		91	15.6	51	22.4	1.6	(1.1-2.3)*	34	16.8	1.1	(0.7-1.7)	0.151
x	x	04:01	x	03:01		28	4.8	17	7.5	1.6	(0.9-3.0)	9	4.5	0.9	(0.4-2.0)	0.202
x	x	05:01	x	03:01		49	8.4	29	12.7	1.6	(1.0-2.6)	34	16.9	2.2	(1.4-3.6)*	0.222
x	x	06:02	04:01	x		20	3.4	12	5.1	1.6	(0.7-3.2)	13	6.5	2.0	(1.0-4.1)	0.550
x	x	05:01	x	02:01		25	4.3	15	6.6	1.6	(0.8-3.0)	8	4.0	0.9	(0.4-2.1)	0.238
01:01	x	x	04:01	x		28	4.7	17	7.3	1.6	(0.9-3.0)	15	7.4	1.6	(0.8-3.1)	0.960
x	x	07:02	04:01	x		23	3.9	14	6.0	1.6	(0.8-3.1)	19	9.5	2.6	(1.4-4.9)*	0.176
x	x	04:01	07:01	x		19	3.2	12	5.1	1.6	(0.8-3.4)	16	8.0	2.6	(1.3-5.2)*	0.234
01:01	x	x	x	02:02		26	4.5	17	7.5	1.7	(0.9-3.3)	8	3.9	0.9	(0.4-2.0)	0.125
02:01	44:03	x	x	x		21	3.5	14	6.0	1.7	(0.9-3.5)	9	4.4	1.3	(0.6-2.8)	0.471
02:01	x	x	x	03:01		100	17.1	58	25.4	1.7	(1.1-2.4)*	49	24.1	1.5	(1.0-2.3)*	0.755
x	x	06:02	07:01	x		57	9.6	36	15.4	1.7	(1.1-2.7)*	26	12.9	1.4	(0.9-2.3)	0.467
x	x	x	07:01	03:02		20	3.2	12	5.3	1.7	(0.8-3.5)	11	4.7	1.5	(0.7-3.2)	0.789
2402	x	x	15:01	x		19	3.2	13	5.6	1.8	(0.9-3.7)	12	5.9	1.9	(0.9-4.0)	0.873
2402	x	x	x	06:02		19	3.3	13	5.7	1.8	(0.9-3.7)	12	5.9	1.9	(0.9-3.9)	0.926
x	44:02	x	x	03:01		53	9.1	34	14.9	1.8	(1.1-2.8)*	41	20.3	2.6	(1.6-4.0)*	0.143
x	x	02:02	x	03:01		22	3.8	15	6.6	1.8	(0.9-3.5)	8	4.0	1.1	(0.5-2.4)	0.238
x	x	03:03	x	03:01		20	3.4	14	6.1	1.8	(0.9-3.7)	4	2.0	0.6	(0.2-1.7)	0.042
x	x	06:02	x	02:02		32	5.5	22	9.6	1.8	(1.0-3.2)*	15	7.5	1.4	(0.7-2.6)	0.422
x	x	x	08:01	04:02		25	4.0	16	7.0	1.8	(0.9-3.4)	11	4.7	1.2	(0.6-2.4)	0.297
x	x	x	07:01	02:02		110	17.7	63	27.6	1.8	(1.2-2.5)*	48	20.6	1.2	(0.8-1.8)	0.078

						Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald p value
HLA-A	HLA-B	HLA-C	HLA- DRB1	HLA- DQB1		n	%	n	%	OR	95% CI	n	%	OR	95% CI	
x	44:02	x	x	06:02		19	3.3	14	6.1	1.9	(1.0-3.9)	15	7.4	2.4	(1.2-4.8)*	0.596
x	51:01	x	x	03:01		17	2.9	12	5.3	1.9	(0.9-3.9)	10	5.0	1.7	(0.8-3.9)	0.883
x	x	06:02	15:01	x		21	3.5	15	6.4	1.9	(0.9-3.7)	5	2.5	0.7	(0.3-1.9)	0.060
x	40:01	x	x	03:02		22	3.8	16	7.0	1.9	(1.0-3.7)	13	6.4	1.8	(0.9-3.6)	0.810
29:02	x	x	07:01	x		22	3.7	17	7.3	2.0	(1.1-3.9)*	8	3.9	1.1	(0.5-2.4)	0.141
x	3701	06:02	x	x		18	3.0	14	6.0	2.0	(1.0-4.2)	7	3.5	1.2	(0.5-2.8)	0.231
x	44:02	x	15:01	x		18	3.0	14	6.0	2.0	(1.0-4.2)*	15	7.4	2.6	(1.3-5.2)*	0.547
x	x	05:01	x	06:02		17	2.9	13	5.7	2.0	(1.0-4.2)	12	6.0	2.1	(1.0-4.5)	0.906
x	x	06:02	x	03:01		27	4.6	20	8.8	2.0	(1.1-3.6)*	13	6.5	1.4	(0.7-2.8)	0.373
x	x	06:02	x	06:02		21	3.6	16	7.0	2.0	(1.0-3.9)*	5	2.5	0.7	(0.3-1.8)	0.038
x	x	07:02	07:01	x		27	4.5	20	8.5	2.0	(1.1-3.6)*	16	8.0	1.8	(1.0-3.5)	0.825
x	x	16:01	x	02:02		30	5.1	22	9.6	2.0	(1.1-3.5)*	13	6.5	1.3	(0.7-2.5)	0.233
x	44:02	x	04:01	x		34	5.7	25	10.7	2.0	(1.2-3.4)*	29	14.4	2.8	(1.6-4.7)*	0.247
x	x	05:01	04:01	x		32	5.4	24	10.3	2.0	(1.2-3.5)*	28	13.9	2.9	(1.7-4.9)*	0.241
01:01	x	x	x	03:01		38	6.5	29	12.7	2.1	(1.3-3.5)*	16	7.9	1.2	(0.7-2.3)	0.104
29:02	44:03	x	x	x		28	4.7	22	9.4	2.1	(1.2-3.8)*	7	3.4	0.7	(0.3-1.7)	0.017
29:02	x	16:01	x	x		28	4.7	22	9.4	2.1	(1.2-3.8)*	7	3.5	0.7	(0.3-1.7)	0.017
29:02	x	x	x	02:02		22	3.8	17	7.5	2.1	(1.1-4.0)*	7	3.4	0.9	(0.4-2.2)	0.077
x	44:03	16:01	x	x		39	6.6	30	12.8	2.1	(1.3-3.5)*	14	7.0	1.1	(0.6-2.0)	0.047
x	x	04:01	x	02:02		15	2.6	12	5.3	2.1	(1.0-4.6)	11	5.5	2.2	(1.0-4.9)	0.923
x	x	05:01	15:01	x		16	2.7	13	5.6	2.1	(1.0-4.5)*	12	6.0	2.3	(1.1-5.0)*	0.853
x	x	16:01	07:01	x		30	5.0	23	9.8	2.1	(1.2-3.6)*	13	6.5	1.3	(0.7-2.6)	0.208
x	x	x	15:01	03:01		39	6.3	28	12.3	2.1	(1.3-3.5)*	17	7.3	1.2	(0.7-2.1)	0.074
x	08:01	05:01	x	x		15	2.5	12	5.1	2.1	(1.0-4.5)	4	2.0	0.8	(0.3-2.4)	0.095
x	07:02	x	07:01	x		24	4.0	20	8.5	2.2	(1.2-4.1)*	15	7.4	1.9	(1.0-3.7)	0.668
x	44:03	x	x	02:02		39	6.7	31	13.6	2.2	(1.3-3.6)*	19	9.4	1.5	(0.8-2.6)	0.178
x	44:03	x	07:01	x		39	6.5	32	13.7	2.3	(1.4-3.7)*	19	9.4	1.5	(0.8-2.6)	0.169
x	x	x	07:01	03:01		20	3.2	16	7.0	2.3	(1.2-4.5)*	14	6.0	1.9	(1.0-3.9)	0.661

						Control (n=637)		VSCC16 (n=238)				CXSCC16 (n=238)				Wald <i>p</i> value
HLA-A	HLA-B	HLA-C	HLA- DRB1	HLA- DQB1		n	%	n	%	OR	95% CI	n	%	OR	95% CI	
x	x	07:02	x	02:02		18	3.1	16	7.0	2.4	(1.2-4.7)*	9	4.5	1.5	(0.7-3.3)	0.266
x	x	x	11:01	06:02		14	2.3	12	5.3	2.4	(1.1-5.3)*	5	2.1	1.0	(0.3-2.7)	0.086
x	44:03	04:01	x	X	1	13	2.2	13	5.6	2.6	(1.2-5.8)*	9	4.5	2.1	(0.9-5.0)	0.610
x	51:01	x	15:01	X		13	2.2	13	5.6	2.6	(1.2-5.8)*	4	2.0	0.9	(0.3-2.8)	0.065
x	x	07:01	11:01	X		12	2.0	12	5.1	2.6	(1.2-5.9)*	3	1.5	0.7	(0.2-2.6)	0.051
x	x	x	07:01	06:02		22	3.5	20	8.8	2.6	(1.4-4.9)*	12	5.2	1.5	(0.7-3.0)	0.130
x	07:02	x	x	02:02		16	2.7	16	7.0	2.7	(1.3-5.5)*	8	4.0	1.5	(0.6-3.5)	0.174
x	51:01	x	x	06:02		13	2.2	13	5.7	2.7	(1.2-5.8)*	4	2.0	0.9	(0.3-2.8)	0.059
68:01	x	x	x	03:01		12	2.1	13	5.7	2.9	(1.3-6.4)*	6	3.0	1.5	(0.5-3.9)	0.173
x	x	07:02	x	03:01		33	5.7	34	14.9	2.9	(1.8-4.8)*	24	11.9	2.3	(1.3-3.9)*	0.370
x	07:02	x	x	03:01		31	5.3	34	14.9	3.1	(1.9-5.2)*	24	11.9	2.4	(1.4-4.2)*	0.359
02:01	x	x	11:01	x		23	3.9	27	11.5	3.3	(1.8-5.8)*	15	7.4	2.0	(1.0-3.9)*	0.145
03:01	x	x	11:01	x		13	2.2	16	6.8	3.3	(1.6-7.0)*	11	5.4	2.6	(1.1-5.8)*	0.540
x	x	x	15:01	02:02		14	2.3	16	7.0	3.3	(1.6-6.8)*	10	4.3	1.9	(0.9-4.4)	0.209
x	x	x	11:01	03:01		46	7.4	49	21.5	3.4	(2.2-5.3)*	30	12.9	1.9	(1.1-3.0)*	0.015
01:01	x	x	11:01	x		10	1.7	15	6.4	4.0	(1.8-9.1)*	3	1.5	0.9	(0.2-3.2)	0.018
x	55:01	03:03	x	x		10	1.7	17	7.3	4.6	(2.1-10.2)*	7	3.5	2.1	(0.8-5.6)	0.092
x	07:02	x	11:01	x		11	1.8	19	8.1	4.7	(2.2-10.1)*	7	3.5	1.9	(0.7-5.0)	0.047
x	x	07:02	11:01	x		11	1.8	19	8.1	4.7	(2.2-10.0)*	6	3.0	1.6	(0.6-4.5)	0.028
x	44:02	x	11:01	x	1	7	1.2	13	5.6	5.0	(2.0-12.6)*	19	9.4	8.8	(3.6-21.1)*	0.128

ORs are arranged from lowest to highest for VSCC16 class I and II co-occurring allele associations. ORs are not adjusted.

* indicates statistically significant associations, although rounding sometimes-caused confidence intervals to include 1.0.

The Wald *P* Value is shown for multiple comparisons and was based on all alleles at a locus.