Supplemental Table 1. MHC class I alleles expressed by twenty SIV-infected Indian rhesus macaques included in this study. The full complement of MHC class I alleles expressed by SIVmac239 (WT)-infected (part A) and 8X-infected (part B) macaques was determined. RNA was isolated from animals' PBMC, converted to cDNA, amplified with primers specific for a variable region of macaque MHC class I genes, and pyrosequenced as described previously (54). The table shows transcript levels as a fraction of the total MHC class I sequence reads for each animal. Transcripts making up 1-5% of reads are colored light orange, 5-30% darker orange, and greater than 30%, red. We report only the alleles that were scored positive in this table. We had previously excluded *Mamu-B*17*+ macaques from this study by PCR-SSP (26). Transcript levels greater than 30% of total reads are consistent with homozygosity at a locus. Set-point viral load status is indicated beneath the animal's identification number. (P) indicates animals with viral loads >20,000 vRNA copy eq/ml plasma, (C) indicates animals with viral loads <20,000 vRNA copy eq/ml plasma, and (EC) indicates animals with viral loads <1,000 vRNA copy eq/ml plasma. *Mamu-B*08* is highlighted in blue in the list of alleles.

Supplemental Table 1A. WT-infected animals.

Animal ID	r02040	r99019	r91003	r01027	r03016	r00032	r96067	rhau10	r03047	r02019
Viral load status	P	P	P	C	C	EC	EC	EC	EC	EC
A1*00101;A1*00102			10.1	18.6			15.9			
A1*00201	16.3	17.6				20.4				
A1*003g	0.2									
A1*004g			13.1			12.9		14.8		
A1*00602										
A1*00701/03/05/06		16.3					20.7			
A1*00801;A1*00801like									15.9	13.8
A1*01101/02/03/04										
A1*019g								12.2		
A1*0250202				16.0						
A1*02601/0102/01like					15.2				12.0	10.2
A1*02801;AG*02011					11.4					
A2*0501/0202/09/16/27				2.1						
A2*05g		1.6	0.4				1.9	0.2		0.5
A2*2401	9.6									
A3*1301/02/04/06/07;A4*1406	3.9	4.4								
A3*1303/11									1.6	5.9
A3*1305/10/10like;A4*0301/02	2.1									
A4*0204		0.2								
A4*140301/01like2/0302/405/09			3.4	2.9	6.6	4.3		3.4	1.9	3.2
A6*0101/02/03/04/04like		0.4					0.2			
A7*0106						0.4				
Mm-A*nov006						0.2		0.1		
Mm-A*nov030								1.5		
B*0010101		12.0								
B*00501/02							2.6			
B*00601/02	3.8	3.4	4.0	3.9	3.3	4.6	3.7	4.4	5.7	5.0
B*00702/03		9.6								
B*00801	10.6	12.4	11.6	13.9	12.4	12.4	12.0	12.1	15.8	12.2
B*01201			7.1	8.6				7.2	8.6	
B*01901/03					10.4					
B*02001;B*06803	5.0									
B*02101/03	3.2									
B*02201			5.5	4.7				5.2		
B*02801	12.4									
B*03001/0301/0302/0303/04			2.7	3.6					3.4	
B*03002/05		3.8								
B*03101/02			1.7					2.4		
B*03501;B*04901			0.1	1.3						
B*03801(primer mismatch)									0.2	
B*04001/02							6.8			
B*044g							2.0			
B*04503										
B*0460101/0202/09/15					1.2				0.5	0.5
B*0460102/0103/0201/08	0.7									
B*04701;B*047like										13.2
B*04702;B*04704;B*07101										
B*05102		0.4	0.4			0.2		0.3	0.5	0.4
B*05104				0.2						
B*05302			0.9	1.0					0.5	
B*05701			1.2	2.1					1.7	
B*02601;B*05702		1.4						1.6		
B*06001										
B*06002										
B*06003						0.3				
B*0680102/02/05										
B*07001			0.2							
B*07201/02	1.2	1.5	2.9	0.8	1.3	2.8	3.7	1.2	1.7	2.9
B*07401/02/02-V1			5.8					3.3	4.1	
B*07902	1.1	0.6	1.2	1.3	0.3		1.1	1.0	0.9	1.0
B*07904										
B*08001						11.7				
B*08101/02						12.1				
B*08201	2.0									
B*08202					3.3				1.8	2.7
B*08301					13.7					
B*09201								1.2		
B*09601				0.1						
Mm-B*nov001										
Mm-B*nov002										
Mm-B*nov005		0.2								
Mm-B*nov007							0.2			
Mm-B*nov012		0.4								
Mm-B*nov017			0.7					0.3	0.5	
Mm-B*nov020										
Mm-B*nov021								0.2		
Mm-B*nov023	1.9									
Mm-B*nov038	6.2									
Mm-B*nov039	3.7									
Mm-B*nov040								0.1		
Mm-B*nov074								0.2		
I*g	1.1	1.8	0.2	1.3	2.4	2.1	0.4	0.8	1.0	1.8
E*01g;E*07g	11.5	8.1	13.5		12.4		28.1	13.7	21.0	26.3
E*0104;E*06			11.7					11.3		
E*0112	0.2					0.3				
E*0113			0.5					0.8		
E*02	2.9	3.9				4.6				
E*0201	0.4		0.7		0.4		0.6	0.2	0.2	0.4
E*030101;E*08										
E*0901						10.3				
Mm-E*nov006					5.5					
Mm-E*nov007							0.2		0.3	
Mm-E*nov013		0.2						0.2	0.2	
F*0102;F*0104;F*0104like						0.3		0.1		
F*0103;F*0105			0.3							

1B. 8X-infected animals

Animal ID	r98030	rh2258	r02120	r96009	r03028	r97072	r03035	r04072	r01088	r04135	r96141	rh2029
Viral load status	P	P	P	P	P	P	P	P	EC	EC	EC	P
A1*00101;A1*00102						13.4			31.3		17.3	12.9
A1*00201		30.6	17.8		17.7					15.0		
A1*003g										0.2		
A1*004g				30.0	11.6	14.6	15.0	16.1				
A1*00602								13.3				
A1*00701/03/05/06	18.4											10.8
A1*00801;A1*00801like											12.3	
A1*01101/02/03/04							4.8					
A1*019g												
A1*0250202	11.7											
A1*02601/0102/01like												
A1*02801;AG*02011			13.5									
A2*0501/0202/09/16/27	2.0							0.2				
A2*05g	1.6					0.2	2.7		0.2		0.6	0.7
A2*2401										8.2		
A3*1301/02/04/06/07;A4*1406		3.0	2.0		2.5					2.9		
A3*1303/11												3.4
A3*1305/10/10like;A4*0301/02										2.4		
A4*0204												
A4*140301/01like2/0302/405/09	1.7	1.4	2.2	6.6	2.5	3.2	1.5	4.4				
A6*0101/02/03/04/04like	0.4						0.8				0.9	
A7*0106												
Mm-A*nov006			0.3	0.2	0.2			0.5				
Mm-A*nov030												
B*0010101			9.5									
B*00501/02												
B*00601/02	9.4	4.3	4.6	4.6	4.1	4.4	4.0	6.0	4.5	2.8	2.9	
B*00702/03			10.3									
B*00801	30.9	19.1	13.4	17.4	15.8	18.3	13.7	20.9	12.4	13.1		
B*01201		8.1		6.0	5.8	6.2	7.8	6.8	5.1		8.8	
B*01901/03												
B*02001;B*06803										2.8		
B*02101/03										4.6		6.4
B*02201				4.3		3.6	5.2	4.9	4.7		6.4	
B*02801										12.3		19.5
B*03001/0301/0302/0303/04		2.4		3.5	2.3	2.4	1.4	3.0	3.7		4.7	
B*03002/05			2.4									
B*03101/02				2.5		2.4		3.8	2.5			
B*03501;B*04901						0.2	0.2		0.1		1.2	
B*03801(primer mismatch)		0.3			5.0							8.6
B*04001/02												
B*044g												10.2
B*04503												
B*0460101/0202/09/15		0.3			0.4		1.6					
B*0460102/0103/0201/08										0.8		
B*04701;B*047like												
B*04702;B*04704;B*07101											12.7	
B*05102	0.2	0.3	0.2	1.1	0.4	0.4	0.3		0.4	0.2		
B*05104	0.4										0.5	0.3
B*05302		0.3		0.7	1.2	0.5	1.2	0.8	0.4		0.9	
B*05701		1.3		2.2	2.7	2.1	2.3	4.1	1.5		4.3	
B*02601;B*05702												
B*06001												2.2
B*06002												5.0
B*06003												
B*0680102/02/05										0.2		2.6
B*07001		0.8			0.2	0.2	0.5		0.1			
B*07201/02	3.8	4.9	4.0	1.4	3.8	3.0	4.2	2.5	0.7	2.2		0.7
B*07401/02/02-V1		4.3		5.9	4.3	5.3	11.6		4.0			
B*07902	1.8	0.5	0.6			1.7	2.5		2.4	1.4		
B*07904											5.4	
B*08001												
B*08101/02												
B*08201										1.7		
B*08202		3.9			3.2							
B*08301												
B*09201												
B*09601			0.2		0.2						0.3	
Mm-B*nov001											0.3	
Mm-B*nov002			0.2		0.2			0.2				
Mm-B*nov005												
Mm-B*nov007												
Mm-B*nov012			0.3									
Mm-B*nov017		1.1		0.6	0.5	0.6	1.0		0.4			
Mm-B*nov020												2.0
Mm-B*nov021												
Mm-B*nov023										1.4		
Mm-B*nov038										5.1		
Mm-B*nov039										4.9		
Mm-B*nov040				0.6		0.2		0.2	0.1			
Mm-B*nov074												
I*g	0.3	0.8	1.5	1.5	1.1	0.5	0.7	1.0	1.0	0.8	2.1	1.2
E*01g;E*07g	16.1	6.0	8.0			6.8	7.7	7.3	23.4	10.3		13.5
E*0104;E*06		5.2	8.3	8.4	8.0	8.5	8.6					
E*0112											0.5	
E*0113		0.3	0.7	0.3	1.0	0.5	0.5					
E*02				2.1	5.0			3.5		6.3	6.1	
E*0201		0.8				0.4			0.6	0.5		
E*030101;E*08											11.7	
E*0901												
Mm-E*nov006												
Mm-E*nov007	0.6											
Mm-E*nov013								0.4	0.3			
F*0102;F*0104;F*0104like	0.7											
F*0103;F*0105						0.2						0.2