

Supplementary information

Table S1

Frequency of base changes at each position of USE domain for 1679 HIV-1 isolates

	Position	% of isolates		Position	% of isolates
	1	54.7		25	0.5
tract 1	2	0.5	U-rich tract	25_26 ins	0.1
	3	0.2		26	0.7
	4	0.8		27	25.2
	4_5ins	0.1		27_28 ins	0.1
	5	1.2		28	0.2
	6	1.5		29	0.3
	7	0.9		30	1.7
	8	3.8		31	2.9
	9	0.5		32	12.3
	9_10ins	0.1		33	14.2
	10	6.7	33_34 ins	0.1	
	11	98.6	34	58.3	
	11_12ins	0.1	34_35 ins	0.1	
	12	0.8	35	0.4	
	13	0.4	36_37 ins	0.1	
	14	2.7	37	22.6	
	15	0.4	37_38 ins	0.1	
	16	0.2	38	0.6	
	16_17ins	0.1	39	0.1	
tract 2	17	0.1	40	0.7	
	18	0.2	41	2.0	
	19	22.6	41_42 ins	0.1	
	20	0.2	42	0.5	
	21	0.3	43	3.6	
	21_22ins	0.1	43_44 ins	0.1	
	22	0.6	44	3.9	
	23	0.3	45	0.9	
	23_24ins	0.1	46	0.2	
	24	0.7	47	0.2	
	24_25ins	0.1			

The percentages $\geq 0.5\%$ and 5% are indicated by yellow and blue colour, respectively.

Table S2

Base changes in USE domain for SIVcpzPtt isolates

Accession number	USE domain position														
	1	5	8	10	11	27	31	32	33	34	37	41	42	43	Others
AF103818	G1A		G8A	U10del	C11A	U27C	U31C		U33C		C37U				11_12insA, U19A
AF115393	G1A			U10A	C11G	U27C	U31C		U33C		C37U				
AF382828				U10del	C11G		U31C		U33C		C37U	A41U			
AJ271369	G1A			U10A	C11G	U27C			U33C		C37U			U43G	G44U
AY169968				U10del	C11G	U27C			U33C		C37U				
DQ373063				U10A	C11G	U27C			U33G	U34C	C37U				
DQ373064	G1A			U10A	C11G	U27C	U31C		U33G	U34C	C37U				
DQ373065				U10del	C11G		U31G	U32C		U34C	C37U				
DQ373066		U5A	G8A	U10A	C11G	U27C	U31C		U33C	U34del	C37U	A41C	C42A	U43A	4_5insA, 26_27insG
JN835462		U5A	G8A	U10del	C11G	U27C	U31C		U33C	U34del	C37U	A41C	C42A	U43A	4_5insA, 26_27insG
EF535993	G1A			U10A	C11G	U27C	U31C		U33C		C37U				
EF535994				U10del	C11G	U27C		U32C		U34C	C37U				
JN835461				U10del	C11G	U27C		U32C		U34C	C37U				
FR686510	G1A			U10del	C11G		U31C		U33C		C37U				
GQ217539				U10del	C11G	U27C	U31C		U33C		C37U				4_5insU, A7U
JN835460				U10del	C11G		U31G	U32C		U34C	C37U				
X52154				U10del	C11G				U33C						

Table S3

Frequency of base changes at each position of TAR hairpin for 1679 HIV-1 isolates

Position	% of isolates	Position	% of isolates	Position	% of isolates
1	4.0	21	1.7	44-45	0.2
2	1.0	22	10.3	45	2.3
3	0.2	23	0.1	45-46	0.1
4	0.1	24	21.4	46	1.1
5	0.4	25	25.8	46-47	0.1
6	0.1	26	1.1	47	6.8
7	0.7	27	0.1	48	69.1
8	0.4	28	0.9	48-49	0.1
8-9	0.2	29	0.5	49	4.9
9	1.6	30	0.2	50	25.1
10	0.4	31	17.3	50-51	0.1
10-11	0.1	32	2.9	51	19.6
11	58.0	33	5.4	51-52	0.1
12	0.8	34	0.9	52	5.8
12-13	0.3	34-35	0.1	52-53	0.8
13	34.5	35	0.5	53	5.7
13-14	0.1	36	0.7	53a54	0.4
14	1.6	37	0.3	54	1.8
15	5.2	38	0.2	54-55	0.1
15-16	0.1	39	0.4	55	0.9
16	1.5	40	0.2	56	0.5
17	1.1	41	0.3	56-57	0.1
18	0.4	42	0.2	57	0.1
19	0.3	43	0.5	59	0.6
20	0.3	44	8.3		

Positions of 3nt bulge and GGGAGCUCUC palindrome are shadowed; the percentages $\geq 0.5\%$ and 5% are indicated by yellow and blue colour, respectively.

Table S4

Frequency of base changes at 3nt bulge in TAR hairpin for 1679 HIV-1 isolates

	Subtype	A	B	C	D	F	G	01_AE	02_AG	RFs*	U**
	Number of isolates	141	645	291	44	13	28	162	112	135	108
	Number of patients	122	258	234	41	12	20	61	28	120	101
Position	Base change	Number of isolates, %									
23	U23C	0	0.1	0	0	0	0	0	0	0	0
24	C24A	16	2	0	0	0	0	0	0	2	7
	C24G	0	0.3	0	0	0	0	0	0	0	0
	C24U	6	2	10	3	69	82	0	79	31	26
	C24del	10	0	0	0	0	0	7	2	5	5
25	U25A	0	4	4	0	8	0	0	1	7	7
	U25C	1	6	3	0	0	0	0	0	4	1
	U25G	0	1	0	2	0	0	0	3	2	0
	U25del	79	0	0	4	0	0	94	0	10	31

The percentages $\geq 0.5\%$ and 5% are indicated by yellow and blue colour, respectively.

* recombinant forms; ** unknown subtype.

Table S5

Base changes in TAR hairpin for SIVcpzPtt isolates

Accession number	Position in TAR hairpin of SIVcpzPtt isolates																
	9	11	12	13	14	15	24	25	31	45	46	48	49	50	52	53	Others
	Base changes																
AF103818	C9U		G12del	U13C			C24A	U25A	U31C			A48G	C49del		G52U	G53A	U10C, A51G
AF115393		G11U		U13C						C45U	U46C	A48G	C49G			G53A	
AF382828	C9del	G11A		U13G	U14C												A47G, G54del
AJ271369		G11U				A15G	C24U	U25A			U46C	A48G		U50del			G1U
AY169968	C9del	G11C	G12A	U13C		A15G			U31C		U46C	A48G	C49del		G52A		G44del, A51G
DQ373063		G11U										A48G			G52A		23_24ins U, G34del
DQ373064		G11U										A48G			G52A		23_24ins U, G34del
DQ373065		G11U					C24U	U25A				A48G		U50A			G54del
DQ373066		G11U		U13G										U50A			
JN835462		G11U		U13G										U50A			
EF535993		G11U		U13C			C24U	U25A	U31C	C45U	U46C	A48G	C49del			G53A	
EF535994		G11U											C49del				53_54ins A
JN835461		G11U											C49del				53_54ins A
FR686510			G12del	U13C		A15G			U31C			A48G		U50del			
GQ217539			G12A	U13G	U14C			U25A				A48U		U50del			C18U, 44_45insU, A47del
JN835460		G11U					C24U	U25A				A48G		U50A			G54del
X52154	C9U	G11C	G12A	U13C		A15G	C24U				U46C	A48G	C49U	U50G	G52A		G43A, G44del