

Table S1: Data set from HIV carriers coinfectd with HTLV-1/2.

ID	qPCR	PCR-RFLP	Definitive result ^a	LAMP	ID	qPCR	PCR-RFLP	Definitive result ^a	LAMP
1	Neg	HTLV-2	HTLV-2	HTLV-2	49	HTLV-1	HTLV-1	HTLV-1	HTLV-1
2	Neg	Neg	HTLV	Neg	50	HTLV-2	Neg	HTLV-2	HTLV-2
3	HTLV-1	HTLV-1	HTLV-1	HTLV-1	66	HTLV-1	HTLV-1	HTLV-1	HTLV-1
4	Neg	HTLV-1	HTLV-1	Neg	67	Neg	Neg	HTLV-2	Neg
5	Neg	Neg	HTLV-2	Neg	68	HTLV-1	HTLV-1	HTLV-1	HTLV-1
6	Neg	Neg	HTLV-1	Neg	71	HTLV-2	HTLV-2	HTLV-2	HTLV-2
7	Neg	HTLV-1	HTLV-1	Neg	72	HTLV-1	HTLV-1	HTLV-1	Neg
8	Neg	Neg	HTLV-2	Neg	74	Neg	Neg	HTLV-1	Neg
9	HTLV-1	HTLV-1	HTLV-1	HTLV-1	76	HTLV-2	Neg	HTLV-2	Neg
10	HTLV-1	HTLV-1	HTLV-1	HTLV-1	79	Neg	Neg	HTLV	Neg
11	Neg	Neg	HTLV-1	Neg	81	HTLV-2	HTLV-2	HTLV-2	HTLV-2
12	HTLV-2	Neg	HTLV-2	Neg	82	HTLV-2	HTLV-2	HTLV-2	HTLV-2
13	HTLV-1	HTLV-1	HTLV-1	HTLV-1	83	Neg	HTLV-2	HTLV-2	Neg
14	Neg	Neg	HTLV-2	Neg	84	HTLV-1	HTLV-1	HTLV-1	HTLV-1
15	HTLV-1	Neg	HTLV-1	HTLV-1	88	HTLV-1	HTLV-1	HTLV-1	HTLV-1
16	HTLV-1	HTLV-1	HTLV-1	HTLV-1	89	HTLV-2	HTLV-2	HTLV-2	HTLV-2
17	HTLV-2	HTLV-2	HTLV-2	HTLV-2	90	HTLV-2	HTLV-2	HTLV-2	HTLV-2
18	Neg	Neg	HTLV-2	Neg	91	HTLV-1	HTLV-1	HTLV-1	HTLV-1
19	Neg	Neg	HTLV-2	Neg	93	HTLV-2	Neg	HTLV-2	Neg
20	Neg	HTLV-1	HTLV-1	HTLV-1	95	HTLV-2	HTLV-2	HTLV-2	HTLV-2
21	Neg	HTLV-1	HTLV-1	HTLV-1	96	HTLV-1	HTLV-1	HTLV-1	HTLV-1
22	HTLV-1	HTLV-1	HTLV-1	HTLV-1	97	HTLV-1	HTLV-1	HTLV-1	HTLV-1
23	Neg	Neg	HTLV	Neg	98	HTLV-1	HTLV-1	HTLV-1	HTLV-1
24	HTLV-1	Neg	HTLV-1	HTLV-1	100	HTLV-1	NP	HTLV-1	HTLV-1
25	HTLV-2	Neg	HTLV-2	Neg	101	HTLV-2	HTLV-2	HTLV-2	HTLV-2
26	Neg	Neg	HTLV-1	Neg	102	Neg	HTLV-2	HTLV-2	Neg
27	HTLV-1	HTLV-1	HTLV-1	HTLV-1	103	HTLV-2	HTLV-2	HTLV-2	HTLV-2
28	Neg	Neg	HTLV-2	Neg	104	Neg	Neg	HTLV-2	Neg
29	HTLV-1	HTLV-1	HTLV-1	HTLV-1	105	HTLV-1	HTLV-1	HTLV-1	HTLV-1
30	HTLV-1	HTLV-1	HTLV-1	HTLV-1	106	HTLV-2	HTLV-2	HTLV-2	HTLV-2
31	HTLV-1	HTLV-1	HTLV-1	HTLV-1	107	HTLV-2	HTLV-2	HTLV-2	HTLV-2
32	HTLV-1	HTLV-1	HTLV-1	HTLV-1	112	Neg	Neg	IND	Neg
33	HTLV-1	HTLV-1	HTLV-1	HTLV-1	114	Neg	Neg	IND	Neg
34	Neg	HTLV-1	HTLV-1	HTLV-1	115	Neg	Neg	IND	Neg
35	HTLV-1	HTLV-1	HTLV-1	HTLV-1	116	Neg	Neg	IND	Neg
36	HTLV-1	Neg	HTLV-1	Neg	117	Neg	Neg	IND	Neg
37	Neg	Neg	HTLV-2	Neg	118	–	–	Neg	Neg
38	HTLV-2	HTLV-2	HTLV-2	HTLV-2	119	–	–	Neg	Neg
39	HTLV-1	HTLV-1	HTLV-1	HTLV-1	120	–	–	Neg	Neg
40	HTLV-2	HTLV-2	HTLV-2	HTLV-2	121	–	–	Neg	Neg
41	HTLV-2	HTLV-2	HTLV-2	HTLV-2	122	–	–	Neg	Neg
42	HTLV-2	HTLV-2	HTLV-2	HTLV-2	123	–	–	Neg	Neg
43	HTLV-2	HTLV-2	HTLV-2	HTLV-2	124	–	–	Neg	Neg
44	HTLV-2	HTLV-1	HTLV-2	Neg	125	–	–	Neg	Neg
46	Neg	HTLV-1	HTLV-1	HTLV-1	126	–	–	Neg	Neg
48	Neg	HTLV-1	HTLV-2	Neg	127	–	–	Neg	Neg

Notes. HIV carriers were investigated for coinfection with HTLV-1/2 by serological screening using two ELISA and reactive and indeterminate results were confirmed by INNO-LIA, Western blot, real-time

PCR (qPCR), and PCR-restriction fragment length polymorphism (PCR-RFLP), as previously published by Campos et al. [27].

^a The definitive result was determined by a positive result in any of the confirmatory tests. DNA samples from this study were evaluated by loop-mediated isothermal amplification (LAMP) assays, and samples used were indicated with the same identification (ID) numbers from the original work of Campos et al. [27]. IND, indeterminate.

Table S2: Data set from HTLV-1/2 monoinfected patients.

ID	WB	qPCR	PCR-RFLP	Definitive result ^a	LAMP	ID	WB	qPCR	PCR-RFLP	Definitive result ^a	LAMP
01	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	37	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1
02	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	38	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
03	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	39	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1
04	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1	40	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
05	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1	41	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1
06	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	42	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
07	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	43	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
08	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	44	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
09	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	45	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
10	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1	46	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
11	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1	47	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
12	IND	HTLV-1	HTLV-1	HTLV-1	HTLV-1	48	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
13	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	49	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
14	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	50	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
15	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	51	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
16	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	52	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
17	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1	53	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
18	IND	HTLV-1	HTLV-1	HTLV-1	HTLV-1	54	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
19	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	55	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
20	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	56	HTLV-1+2	HTLV-1	HTLV-1	HTLV-1	HTLV-1
21	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1	57	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1
22	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	58	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
23	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	59	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
24	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	60	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
25	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	61	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
26	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1	62	HTLV-1+2	HTLV-1	HTLV-1	HTLV-1	HTLV-1
27	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1	63	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
28	HTLV-1+2	HTLV-1	HTLV-1	HTLV-1	HTLV-1	64	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
29	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	65	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1
30	HTLV-1+2	HTLV-1	HTLV-1	HTLV-1	HTLV-1	66	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1
31	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	67	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1
32	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1	68	HTLV-1+2	HTLV-1	HTLV-1	HTLV-1	HTLV-1
33	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	69	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
34	HTLV-1+2	HTLV-1	HTLV-1	HTLV-1	HTLV-1	70	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
35	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1	71	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1
36	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1	72	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1

Table S2 (continued)

ID	WB	qPCR	PCR-RFLP	Definitive result ^a	LAMP	ID	WB	qPCR	PCR-RFLP	Definitive result ^a	LAMP
73	HTLV-1+2	HTLV-1	HTLV-1	HTLV-1	HTLV-1	109	HTLV-1	Neg	HTLV-1	HTLV-1	Neg
74	n.d.	HTLV-1	HTLV-1	HTLV-1	HTLV-1	110	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
75	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	111	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
76	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	112	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
77	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	113	HTLV-1	Neg	HTLV-1	HTLV-1	Neg
78	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	114	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
79	HTLV-2	Neg	HTLV-2	HTLV-2	HTLV-2	115	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
80	HTLV-2	HTLV-2	HTLV-2	HTLV-2	HTLV-2	116	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
81	HTLV-2	HTLV-2	HTLV-2	HTLV-2	HTLV-2	117	IND	Neg	HTLV-1	HTLV-1	Neg
82	HTLV-2	Neg	HTLV-2	HTLV-2	HTLV-2	118	HTLV-1	Neg	HTLV-1	HTLV-1	HTLV-1
83	HTLV-2	Neg	HTLV-2	HTLV-2	HTLV-2	119	HTLV-1	Neg	Neg	HTLV-1	HTLV-1
84	HTLV-2	HTLV-2	HTLV-2	HTLV-2	HTLV-2	120	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
85	HTLV-2	HTLV-2	HTLV-2	HTLV-2	HTLV-2	121	HTLV-1	Neg	Neg	HTLV-1	HTLV-1
86	HTLV-2	HTLV-2	HTLV-2	HTLV-2	HTLV-2	122	HTLV	Neg	HTLV-1	HTLV-1	HTLV-1
87	HTLV-2	HTLV-2	HTLV-2	HTLV-2	HTLV-2	123	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
88	n.d.	HTLV-2	HTLV-2	HTLV-2	HTLV-2	124	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
89	HTLV-2	Neg	Neg	HTLV-2	HTLV-2	125	HTLV-1	Neg	HTLV-1	HTLV-1	HTLV-1
90	n.d.	Neg	HTLV-2	HTLV-2	Neg	126	HTLV-1+2	HTLV-1	HTLV-1	HTLV-1	HTLV-1
91	HTLV-2	Neg	HTLV-2	HTLV-2	Neg	127	HTLV-1	Neg	HTLV-1	HTLV-1	HTLV-1
92	HTLV-2	Neg	Neg	HTLV-2	Neg	128	IND	Neg	HTLV-1	HTLV-1	Neg
93	HTLV-2	Neg	Neg	HTLV-2	Neg	129	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
94	HTLV-2	Neg	Neg	HTLV-2	Neg	130	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
95	HTLV-2	Neg	Neg	HTLV-2	HTLV-2	131	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
96	HTLV-2	Neg	Neg	HTLV-2	Neg	132	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
97	HTLV-2	Neg	Neg	HTLV-2	HTLV-2	133	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
98	HTLV-1	Neg	HTLV-1	HTLV-1	Neg	134	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
99	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	135	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
100	HTLV-1	Neg	HTLV-1	HTLV-1	HTLV-1	136	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
101	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	137	HTLV-2	HTLV-1	HTLV-1	HTLV-1	HTLV-1
102	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1	138	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
103	HTLV-1	Neg	HTLV-1	HTLV-1	Neg	139	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
104	HTLV-1	Neg	HTLV-1	HTLV-1	Neg	140	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
105	HTLV-1	Neg	Neg	HTLV-1	HTLV-1	141	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
106	HTLV-1	Neg	HTLV-1	HTLV-1	Neg	142	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
107	HTLV-1	Neg	HTLV-1	HTLV-1	Neg	143	HTLV-1	HTLV-1	HTLV-1	HTLV-1	HTLV-1
108	HTLV-1	HTLV-1	HTLV-1	HTLV-1	Neg	144	HTLV	HTLV-1	HTLV-1	HTLV-1	HTLV-1

Notes. ID, identification; WB, Western blot; qPCR, real-time quantitative PCR; PCR-RFLP, PCR-restriction fragment length polymorphism; LAMP, loop-mediated isothermal amplification; IND, indeterminate; n.d., not done; Neg, negative.

^a The definitive result was determined by a positive result in any confirmatory assay, and the HTLV subtype was defined preferentially by the result from molecular assays (qPCR and PCR-RFLP).

Table S3: Overall accuracy and sensitivity of LAMP, qPCR and PCR-RFLP assays in individuals monoinfected by HTLV-1/2.

Groups		LAMP		qPCR		PCR-RFLP	
		accuracy	sensitivity	accuracy	sensitivity	accuracy	sensitivity
Monoinfected	n	(%)	(%)	(%)	(%)	(%)	(%)
HTLV-1	125	93.1 (87.6-96.7)	92.0 (85.8-96.1)	88.2 (81.8-93.0)	86.4 (79.1-91.9)	97.9 (94.0-99.6)	97.6 (93.2-99.5)
HTLV-2	19	95.8 (91.2-98.5)	68.4 (43.5-87.4)	91.7 (85.9-95.6)	36.8 (6.3-61.6)	95.1 (90.3-98.0)	63.2 (38.4-83.7)

Notes. The overall accuracy and sensitivity of HTLV-1/2 LAMP, real-time quantitative PCR (qPCR), and PCR-restriction fragment length polymorphism (PCR-RFLP) assays are shown in percentage. 95% confidence intervals are presented inside parenthesis.

Table S4: Overall accuracy and sensitivity of LAMP, qPCR and PCR-RFLP assays in HIV carriers coinfecting with HTLV-1/2.

Groups		LAMP		qPCR		PCR-RFLP	
		accuracy	sensitivity	accuracy	sensitivity	accuracy	sensitivity
HIV-coinfected	n	(%)	(%)	(%)	(%)	(%)	(%)
HTLV-1	39	90.2 (81.7-95.7)	79.5 (63.4-90.7)	87.8 (78.7-94.0)	74.4 (57.9-87.0)	88.9 (80.0-94.8)	81.6 (65.7-92.3)
HTLV-2	35	79.3 (68.9-87.4)	51.4 (34.0-68.6)	84.2 (74.4-91.3)	62.7 (44.9-78.5)	80.3 (69.9-88.3)	54.3 (36.7-71.2)

Notes. The overall accuracy and sensitivity of HTLV-1/2 LAMP, real-time quantitative PCR (qPCR), and PCR-restriction fragment length polymorphism (PCR-RFLP) assays are shown in percentage. 95% confidence intervals are presented inside parenthesis.