

Table S1. BIC and number of components obtained by finite mixture model

Pathogen	Antigen	number of components	AIC (Akaike information criterion)	BIC (Bayesian information criterion)
HIV	gp41	2	-2204.037	-2173.363
		3	-2939.859	-2890.781
		4	-3089.633	-3022.151
		5	-3104.587	-3018.701
	gp120	2	-133.1108	-102.437
		3	-391.6685	-342.5904
		4	-456.9757	-389.4933
		5	-454.4575	-368.5708
	gag	2	1585.118	1615.792
		3	954.8943	1003.972
		4	776.1338	843.6162
		5	712.6383	798.5249
6		700.6908	804.9817	
<i>W. bancrofti</i>	SXP1	2	1599.353	1630.027
		3	1552.889	1601.967
		4	1537.351	1604.833
<i>L. donovani</i>	KRP42	2	3353.388	3384.062
		3	3313.9	3362.978
		4	3299.853	3367.335
<i>E. histolytica</i>	C-IgL	2	297.1231	327.797
		3	183.576	232.6541
		4	165.3139	232.7962
Cholera Toxin	CTX	2	-690.5053	-659.8315
		3	-695.2258	-646.1477
<i>T. gondii</i>	SAG1	2	5242.179	5272.853
		3	4657.758	4706.836
		4	4520.948	4588.43
		5	4482.768	4568.654
		6	4477.132	4581.423