Supplemental Table 1. Agreement between the various testing strategies

Samples (No.)	% Agreement-First-tier Tests	Kappa Value[a]	% Agreement-MTTTs	Kappa Value[a]	% Agreement-STTTs	Kappa Value[a]
Lyme disease (124)						
Early Lyme disease with EM						
Acute (40)	75	0.64 (0.47, 0.82)	88	0.83 (0.65, 1.01)	90	0.87 (0.69, 1.04)
Convalescent (38)	76	0.38 (0.19, 0.56)	89	0.80 (0.62, 0.98)	95	0.93 (0.74, 1.11)
Lyme neuroborreliosis or Lyme carditis						
Lyme neuroborreliosis (10)	100	NaN	100	NaN	100	1 (0.64, 1]
Lyme carditis (7)	71	0.22 (-0.21, 0.65)	86	0.74 (0.31, 1.17)	71	0.22 (-0.21, 0.65)
Late Lyme disease						
Lyme arthritis (29)	100	NaN	100	NaN	100	1 (0.79, 1]
Negative controls (347)[b]						
Other diseases (144)						
Fibromyalgia (31)	71	-0.11 (-0.31, 0.1)	100	NaN	100	NaN
Severe periodontitis (20)	95	-0.02 (-0.27, 0.24)	100	NaN	100	NaN
Rheumatoid arthritis (21)	57	-0.17 (-0.41, 0.08)	100	NaN	100	NaN
Syphilis (20)	10	-0.29 (-0.54, -0.04)	80	-0.07 (-0.32, 0.18)	100	NaN
Multiple sclerosis (22)	64	-0.03 (-0.27, 0.21)	95	-0.02 (-0.26, 0.23)	100	NaN
Infectious mononucleosis (30)	30	-0.19 (-0.4, 0.01)	90	-0.03 (-0.24, 0.17)	70	0.07 (-0.14, 0.27)
Healthy Controls (203)						
Endemic (101)	75	0.02 (-0.1, 0.13)	100	1 (0.89, 1]	96	0.42 (0.3, 0.53)
Non-endemic (102)	75	0.02 (-0.09, 0.13)	97	-0.01 (-0.12, 0.11)	99	0 (-0.12, 0.11)
All Samples tested (471)	71	0.55 (0.49 , 0.6)	96	0.91 (0.86, 0.96)	95	0.90 (0.85, 0.95)

[a]NaN; not a number; the Kappa statistic cannot be computed because the test results were either all positive or all negative for both strategies.

[b]A total of 7 controls were positive by both WCS and C6; a total of 2 controls were positive by both VlsE and C6; a total of 2 controls were positive by both VlsE and WCS; and 1 control was positive by all three first-tier tests.