

Additional Data: Sensitivity of RDT-DNA extraction methods in *in vitro* cultured parasites. Raw Data showing detection levels for the three PCR methods used in the in vitro part of the study. A) 18S ribosomal DNA (rDNA) nested PCR, B) Cytochrome b nested PCR and C) 18s rDNA probe based real-time PCR. X marks a positive PCR in A and B; in C the minimum Cycle threshold (Ct) value is given. Detection limit was determined as the lowest consecutive positive.

A) 18S rDNA nested PCR			Dilution series 1:10 (parasites / μ L)								
Extraction Method	Extraction matrix	Extraction part	200,000	20,000	2000	200	20	2	0.2	0.02	0
Simple elution	Paracheck-Pf	1 cm	X								
	SD-Bioline	1 cm	X	X	X	X	X				
	Filter paper	5 μ L	X	X	X						
Chelex-100	Paracheck-Pf	1 cm	X	X	X	X					
		Proximal half	X	X	X	X					
	SD-Bioline	1 cm	X	X	X	X	X				
		Proximal half	X	X	X	X					
	Filter paper	5 μ L	X	X	X	X	X				
ABI	Paracheck-Pf	1 cm	X	X	X						
		Proximal half	X	X	X						
		Distal two-thirds	X	X	X						
		Whole RDT	X	X	X	X					
	SD-Bioline	1 cm	X	X	X						
		Proximal half	X	X	X	X					
		Distal two-thirds	X	X	X						
		Whole RDT	X	X		X					
	Filter paper	5 μ L	X	X	X						

B) Cytochrome b nested PCR			Dilution series 1:10 (parasites/ μ L)								
Extraction Method	Extraction matrix	Extraction part	200,000	20,000	2000	200	20	2	0.2	0.02	0
Simple elution	Paracheck-Pf	1 cm									
	SD-Bioline	1 cm	X	X	X	X	X	X			
	Filter paper	5 μ L	X	X	X	X					
Chelex-100	Paracheck-Pf	1 cm	X	X	X	X					
		Proximal half	X	X	X	X	X				
	SD-Bioline	1 cm	X	X	X	X					
		Proximal half	X	X	X	X					
	Filter paper	5 μ L	X	X	X	X	X	X			
ABI	Paracheck-Pf	1 cm	X	X	X	X					
		Proximal half	X	X	X	X					
		Distal two-thirds	X	X	X	X	X				
		Whole RDT	X	X	X	X					
	SD-Bioline	1 cm	X	X	X	X	X				
		Proximal half	X	X	X	X		X			
		Distal two-thirds	X	X	X	X	X				
		Whole RDT	X	X	X	X	X				
	Filter paper	5 μ L	X	X	X	X					

C) 18s rDNA probe based real-time PCR			Dilution series (1:10 parasites/ μ L)								
Extraction Method	Extraction matrix	Extraction part	200,000	20,000	2000	200	20	2	0.2	0.02	0
Simple elution	Paracheck-Pf	1cm	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SD-bioline	1cm	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Filter paper	5 μ L	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chelex-100	Paracheck-Pf	1cm	28.4	27.7	31.5	35.6	37.5	39.6			
		Proximal half	24.1	27.1	30.6	33.7	37.5				
	SD-Bioline	1cm	24.0	27.7	35.1	33.7	36.9	39.7			
		Proximal half	24.3	28.3	31.6	34.5	36.0	39.3			
	Filter paper	5 μ L	25.7	27.3	30.6	34.2	36.3	38.3			
ABI	Paracheck-Pf	1cm	27.4	33.5	35.6	40.5					
		Proximal half	26.4	30.2	34.6	37.2		39.4			
		Distal two-thirds	26.7	32.8	36.3	41.0					
		Whole RDT	28.3	31.8	34.3	37.3	40.3				
	SD-Bioline	1cm	29.3	33.9	37.3	40.0	40.1				
		Proximal half	29.2	32.0	36.7	38.6	40.1				
		Distal two-thirds	28.0	31.0	34.0	37.4					
		Whole RDT	29.5	32.9	36.1	38.8	39.0				
	Filter paper	5 μ L	32.8	36.3	39.1						

NA = Not determined due to the limiting DNA extraction volume.