

Original article

Title: ***Mycobacterium tuberculosis*–derived circulating cell–free DNA in patients with pulmonary tuberculosis and persons with latent tuberculosis infection**

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S1 File

Appendix 1. Results of *IS6110*-targeted quantitative polymerase chain reaction in plasma cell-free DNA from patients with pulmonary tuberculosis stratified by sputum smear grading.

Among 24 patients with pulmonary tuberculosis (PTB) in the present study, 11 were sputum-smear positive for acid-fast bacilli (4 with 4+ on the grading scale, 5 with 3+, 2 with 2+, and none with 1+). Table S1 presents the results of quantitative polymerase chain reaction (qPCR) targeting the *Mycobacterium tuberculosis* (MTB)-specific *IS6110* gene fragment in plasma cell-free DNA (cfDNA) in PTB patients stratified by sputum smear grading. The median cycle threshold (Ct) value was 37.24 in patients with 4+ smear-positivity, 37.92 in those with 2-3+, and 38.58 in those with smear-negativity. However, no significant difference in the Ct values was observed between the three groups ($p = 0.958$ in the analysis of variance). Additional large-scale studies to assess the relationship between the quantification of bacilli in sputum in patients with PTB and qPCR results are warranted.

Table S1. Results of qPCR targeting MTB-derived *IS6110* in the plasma cfDNA of patients with PTB stratified by sputum smear grading ($n = 24$).

Sputum smear grading	Cycle threshold value, Median (interquartile range)
Smear-positive, 4+ in grade (n=4)	37.24 (36.32-42.93)
Smear-positive, 2-3+ grade (n=7)	37.92 (33.57-45.00)
Smear-negative (n=13)	38.58 (33.98-45.00)