

S1 Table. Sequences of primers and probes for qPCR and ddPCR.

Name	Oligo sequences 5' to 3'			Product Size (bp)	TM	References
	Forward primer	Reverse primer	Taqman probe			
RLEP	GCAGCAGTATCGTGTAGTGA AA	CGCTAGAAGGTTGCCGTAT	FAM-CGCCGACGGCCGGATCATCGA-MGB	73	60	[1,2]
HSP18	CGATCGGGAAATGCTTGC	CGAGAACCGAGCTGACGATTG	FAM-ACACCGCGTGGCCGCTCG-MGB	62	62	[3]
16SrRNA	GCATGTCTTGTGGTGGAAAG C	CACCCCACCAACAAGCTGAT	FAM-CATCCTGCACCGCA-MGB	71	71	[2]
esxA	CGTTTCAGCCGAGTGATTGA	CCGAGGGAATAAACCATGCA	FAM-TGCTTGACCAGGTCGCCA-MGB	62	62	[3]
Ag85B	GTGCACGGCAGCAACCTAA	TCGGCATTGAGGTTAACAC	FAM-TTCCAGGACGCCTACAACGGTGCT-MGB	80	60	[4]
sodA	CACCTGCCCGATTGG	CTTGGTGTGGTGGATCTCGTT	FAM-ACTACGCAGCGCTGGAACCACATATCT-MGB	82	60	[2]
pra	CACACCGTCGTCATGATCTT G	CCGCTGTGGACTCCAAA	FAM-CGCCAGGGTTTGC-MGB	54	60	[5,6]
groEL	GCCGGGTGCAGCAGTATC	CCGACGGCCGGATCA	FAM-TGTTAGTGAACAGTGCATCG-MGB	63	60	[7]
rpoT	TGACTACGTCGTCGTCTCG A	TGAGCCCAGCGAGGACAT	FAM-AGACCGAGGTCGGC-MGB	80	60	[8]
ML2179	ACGCTCGCGTATGTCAAAAAA	TCAACCTAGCCAATTATCGATGA	FAM-ATTTGACCCATCGTTATAT-MGB	68	58	[9]
ML1545	CTCCGTCTCCGTCTTGCT	GGCTCCCTGGGATGGTTT	FAM-ACTGTGAAATAGTTCATGCGG-MGB	61	60	[9,10]
ML0098	TCGCTCGGCCGTACTAC	TGAAAGCGACCGGAATATCC	FAM-AACCGCTGGCAACG-MGB	111	60	[4]
ML0024	GGTGCACGATCACGATGGT	TCCGGTTGTCGTCGAAAG	FAM-TCGATTCCCTGGCAGAT-MGB	57	60	[11]
MntH	ACCCGCTTGGACGTCATC	TCGCCGTATTACGATTCC	FAM-TGGCGATGACGATCG-MGB	55	58	[12]
AT repeats	CGGGTTGGCGCTTCTG	CGCCCATCACCTAGCTTT	FAM-TATGGCTGCGCAGTTG-MGB	57	60	[12,13]
AGT repeats	TCAACGCTCGGGTTTCG	CCTTGGCAGGCAGGTGAT	FAM-TAGTCGCGCAGATGC-MGB	59	58	[12,13]
TTC repeats	CGGGAAATAAGTTAGCATTG AAGAA	TCCGTTGGGTTCGATCGA	FAM-AGAACTCGCCGATGTC-MGB	124	60	[12,13]

References:

1. Moher D, Liberati A, Tetzlaff J, Altman DG, Group P. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*. 2009;339: b2535. doi: 10.1136/bmj.b2535.
2. Yan W, Xing Y, Yuan LC, De Yang R, Tan FY, Zhang Y, et al. Application of RLEP real-time PCR for detection of *M. leprae* DNA in paraffin-embedded skin biopsy specimens for diagnosis of paucibacillary leprosy. *Am J Trop Med Hyg*. 2014;90(3): 524-529. doi: 10.4269/ajtmh.13-0659.
3. Davis GL, Ray NA, Lahiri R, Gillis TP, Krahenbuhl JL, Williams DL, et al. Molecular assays for determining *Mycobacterium leprae* viability in tissues of experimentally infected mice. *PLoS Negl Trop Dis*. 2013;7(8): e2404. doi: 10.1371/journal.pntd.0002404.
4. Martinez AN, Britto CF, Nery JA, Sampaio EP, Jardim MR, Sarno EN, et al. Evaluation of real-time and conventional PCR targeting complex 85 genes for detection of *Mycobacterium leprae* DNA in skin biopsy samples from patients diagnosed with leprosy. *J Clin Microbiol*. 2006;44(9): 3154-3159. doi: 10.1128/JCM.02250-05.
5. Caleffi KR, Hirata RD, Hirata MH, Caleffi ER, Siqueira VL, Cardoso RF. Use of the polymerase chain reaction to detect *Mycobacterium leprae* in urine. *Braz J Med Biol Res*. 2012;45(2): 153-157.
6. Arunagiri K, Sangeetha G, Sugashini PK, Balaraman S, Showkath Ali MK. Nasal PCR assay for the detection of *Mycobacterium leprae* pra gene to study subclinical infection in a community. *Microb Pathog*. 2017;104: 336-339. doi: 10.1016/j.micpath.2017.01.046.
7. Qinxue W, Xinyu L, Wei H, Tao L, Yaoping Y, Jinping Z, et al. A study on PCR for detecting infection with *M. leprae*. *Chin Med Sci J*. 1999;14(4): 237-241.
8. Turankar RP, Pandey S, Lavania M, Singh I, Nigam A, Darlong J, et al. Comparative evaluation of PCR amplification of RLEP, 16S rRNA, rpoT and Sod A gene targets for detection of *M. leprae* DNA from clinical and environmental samples. *Int J Mycobacteriol*. 2015;4(1): 54-59. doi: 10.1016/j.ijmyco.2014.11.062.
9. Chaitanya VS, Cuello L, Das M, Sudharsan A, Ganesan P, Kanmani K, et al. Analysis of a novel multiplex polymerase chain reaction assay as a sensitive tool for the diagnosis of indeterminate and tuberculoid forms of leprosy. *Int J Mycobacteriol*. 2017;6(1): 1-8. doi: 10.4103/2212-5531.201885.
10. Sundeep Chaitanya V, Das M, Eisenbach TL, Amoako A, Rajan L, Horo I, et al. *Mycobacterium leprae* specific genomic target in the promoter region of probable 4-alpha-glucanotransferase (ML1545) gene with potential sensitivity for polymerase chain reaction based diagnosis of leprosy. *Int J Mycobacteriol*. 2016;5(2): 135-141. doi: 10.1016/j.ijmyco.2016.01.002.

11. da Silva Martinez T, Nahas AA, Figueira MM, Costa AV, Goncalves MA, Goulart LR, et al. Oral lesion in leprosy: borderline tuberculoid diagnosis based on detection of *Mycobacterium leprae* DNA by qPCR. *Acta Derm Venereol*. 2011;91(6): 704-707. doi: 10.2340/00015555-1175.
12. Cruz AF, Furini RB, Roselino AM. Comparison between microsatellites and M1 MntH gene as targets to identify *Mycobacterium leprae* by PCR in leprosy. *An Bras Dermatol*. 2011;86(4): 651-656.
13. Young SK, Taylor GM, Jain S, Suneetha LM, Suneetha S, Lockwood DN, et al. Microsatellite mapping of *Mycobacterium leprae* populations in infected humans. *J Clin Microbiol*. 2004;42(11): 4931-4936. doi: 10.1128/JCM.42.11.4931-4936.2004.