The reduction of CO₂ mediated by acetogenic microorganisms is gaining more interest as a valuable tool for the generation of renewable energy and value-added chemicals (1–3). Thus, homoacetogenic bacteria that use the Wood-Ljungdahl pathway for the CO₂ fixation process have proven to be a main component in this research field (3–8). Among the numerous species of homoacetogens, three organisms have been relatively well studied (Moorella thermoacetica, Acetobacterium woodii, and Clostridium ljungdahlii) (9–13). However, several relevant species remain poorly studied, and the genetic information of many of them remains almost nonexistent or is very limited. Therefore, in this study, we report the draft genome sequence of *Moorella mulderi* DSM 14980T, a thermophilic homoacetogenic anaerobic bacterium originally isolated from a bioreactor with methanol as the energy source (14). Similar to *M. thermoacetica*, *M. mulderi* DSM 14980T is able to grow on several substrates, including methanol, H₂, CO₂, pyruvate, and glucose. However, several differences have been reported. The optimal temperature of *M. mulderi* DSM 14980T (65°C) is higher than the optimal temperature reported for *M. thermoacetica* (55 to 60°C). Moreover, in contrast to *M. thermoacetica*, *M. mulderi* DSM 14980T is able to grow on lactate but cannot use nitrate as an electron acceptor (14).

The MasterPure complete DNA purification kit (Epicentre, Madison, WI, USA) was used to isolate the chromosomal DNA of *M. mulderi* DSM 14980T. Isolated DNA was used to generate Illumina shotgun sequencing libraries. Sequencing was performed by employing a MiSeq system using MiSeq reagent kit version 3 (600 bp). The funder (DAAD) had no role in the study design, data collection and interpretation, or the decision to submit the work for publication.

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