Abstract

It was found that a fragment of native Thermus aquaticus DNA polymerase (TaqWT) lacking 288 N-terminal amino acids (TaqΔ288) possesses an increased thermostability over TaqWT, TaqΔ279, and TaqΔ289. The present invention therefore provides TaqΔ288, recombinant expression vectors encoding the same or derivatives thereof, as well as purification protocols for TaqΔ288. The invention also encompasses kits containing TaqΔ288 as well as the use of TaqΔ288 and kits containing TaqΔ288. In addition, the invention encompasses methods for the sequencing a nucleic acid template and methods for amplifying a target nucleic acid.