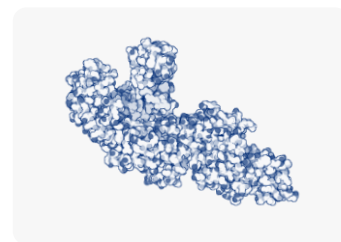


Anti-Taq DNA polymerase rabbit recombinant monoclonal antibody



Taq DNA polymerase is a thermostable enzyme widely used in molecular biology for DNA amplification techniques such as polymerase chain reaction (PCR). Originally isolated from the thermophilic bacterium *Thermus aquaticus*, Taq polymerase retains activity at the elevated temperatures required for DNA denaturation. It is broadly utilized in research, diagnostics, and biotechnology applications. We offer a rabbit recombinant monoclonal antibody (DB-201187) against Taq DNA polymerase with high binding affinity ($K_D < 300$ pM), specifically engineered to enable hot-start PCR. In addition, clone DB-201187 is well suited for applications such as Western blot, Immunoprecipitation, and ELISA.



Antibody specification

Target
Taq DNA polymerase

Target type
Protein

Immunogen
Stoffel fragment of Taq DNA polymerase

Epitope
Not determined (within Stoffel fragment)

Specificity
Thermus aquaticus

Isotype
IgG-Kappa 1

Clonality
Monoclonal

Class
Recombinant

Host
Rabbit

Expression system
Mammalian

Concentration
500 U/ μ l*

Storage buffer
PBS

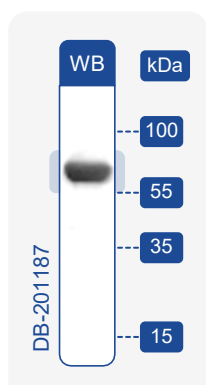
Conjugation
Upon request

Field
Molecular biology

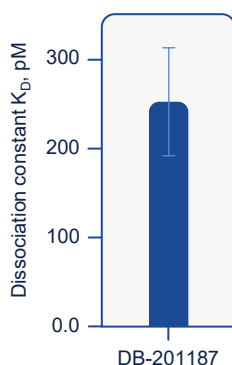
Applications

- Hot-start PCR
- Western blot
- Immunoprecipitation
- ELISA

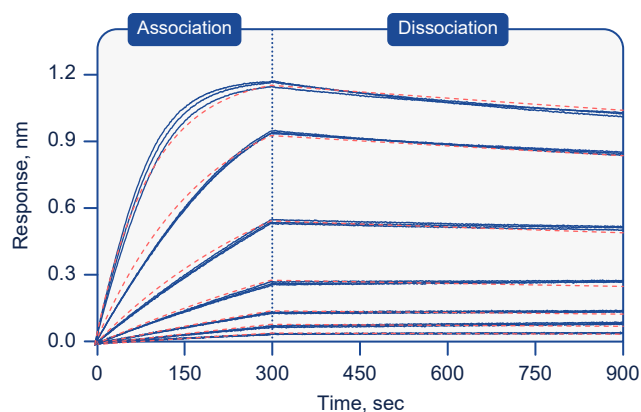
Clone information



Western blot (WB) analysis demonstrates specific detection of the Stoffel fragment of Taq DNA polymerase (~61 kDa) using clone DB-201187.



DIANA competitive assay demonstrates high-affinity binding of clone DB-201187 to Taq DNA polymerase, with K_D of 252.2 ± 60.4 pM.



Bi-layer interferometry (BLI) analysis of clone DB-201187 shows high-affinity binding to Taq DNA polymerase (K_D 297 pM), with rapid association (k_{on} 5.69×10^5 $M^{-1}s^{-1}$) and slow dissociation (k_{off} 1.69×10^{-4} s^{-1}). The data showed a good fit to the applied binding model ($R^2 = 0.998$).

Contact us



DIANA Biotechnologies
Průmyslová 596
252 50 Vestec
Czech Republic



antibodies@dianabiotech.com

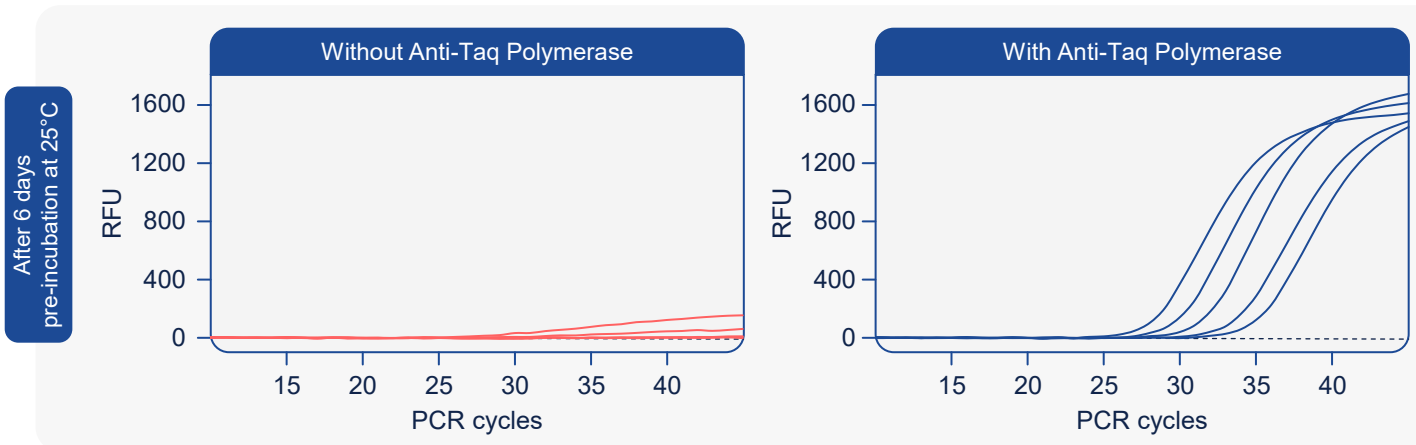
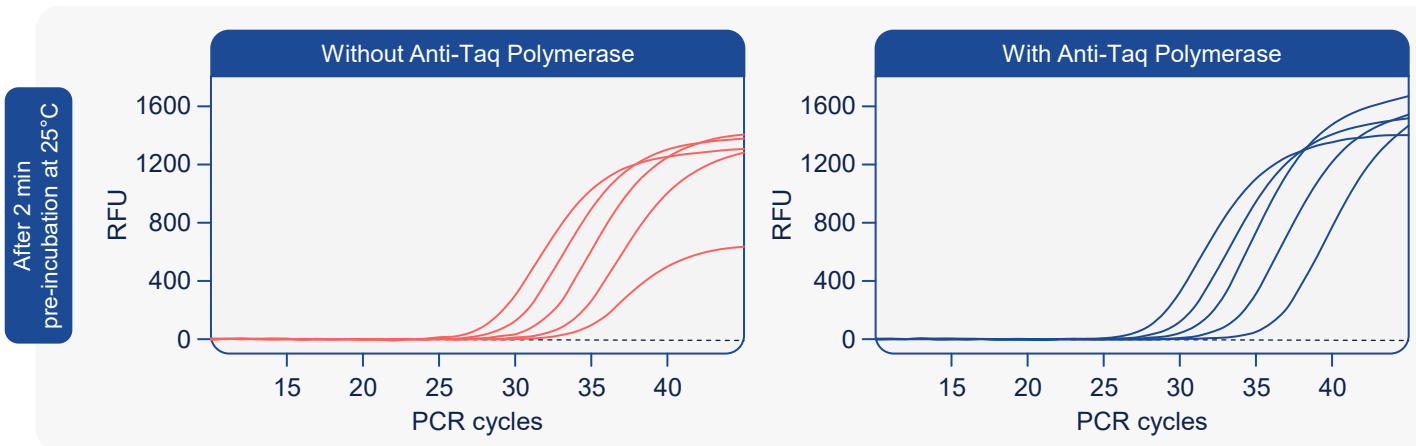


www.dianabiotech.com

*For optimal hot-start performance, use 5 U of antibody per 1 U of Taq polymerase to ensure complete enzyme inactivation prior to thermal activation.

Antibody-Mediated Hot-Start for Controlled Polymerase Activation

Anti-Taq Polymerase provides effective hot-start control by inhibiting polymerase activity at room temperature (25 °C), thereby preventing premature enzyme activity during reaction setup and minimizing non-specific amplification (e.g., primer-dimer products). Upon thermal activation, the enzyme is rapidly released, enabling efficient and reproducible target amplification. In multiplex qPCR, Anti-Taq Polymerase, as part of DBdirect™ PCR Probe Mix SuperSens 2.0, ensures strong fluorescence signal and consistent amplification across targets. The data below demonstrate clean, consistent, and stable PCR performance even after 6 days of room temperature (25 °C) preincubation, whereas no detectable amplification is observed under the same conditions without Anti-Taq Polymerase.



Detection of viral target (FAM) by qPCR using DBdirect™ PCR Probe Mix SuperSens 2.0 with and without Anti-Taq Polymerase

PCR protocol

2 min / 6 days at 25°C, 2 min at 95°C,
45 cycles: 10 sec at 95°C, 15 sec at 60°C, 15 sec at 72°C

Dilution series of the template (cDNA)

1,000 – 316 – 100 – 32 – 10 copies per well

Contact us



DIANA Biotechnologies
Průmyslová 596
252 50 Vestec
Czech Republic



antibodies@dianabiotech.com



www.dianabiotech.com