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CERTIFICATE OF ANALYSIS

Product: Taq DNA polymerase

Catalog No: T032, T033, T034

Lot No: T032122024

Date of Expiry: 12/2024

Concentration: 5U/µl

Storage buffer: 20 mM HEPES, pH 7.9, 100 mM KCl, 0.1 mM EDTA, 1 mM DTT, 0.5 mM PMSF, stabilizers, 50% glycerol.

Supplied with: 10 x reaction buffer with $MgCl_2$ - 100 mM Tris-HCl, pH 8.8 (at 25°C), 500 mM KCl, 1% Triton X-100, 15 mM $MgCl_2$.
or
10 x reaction buffer without $MgCl_2$ - 100 mM Tris-HCl, pH 8.8 (at 25°C), 500 mM KCl, 1% Triton X-100; + 25 mM $MgCl_2$ in separate tube

Storage temperature: -16 to -25 °C

Purity: The enzyme was analyzed by SDS-PAGE and single band of ~94 kDa was observed

Functional Test: The Lot has been tested for the ability to amplify a fragment of genomic DNA using the following conditions:

Test conditions:
41.5 µl PCR H_2O
5 µl 10 x reaction buffer with $MgCl_2$ (see above)
1 µl 10 mM dNTP mix (10 mM for each, dATP, dCTP, dGTP, and dTTP)
0.5 µl 50 µM 5' primer (5'-ATGAACCCAGCCATCAGCG-3'
0.5 µl 50 µM 3' primer 5'-GGGTAAGGACCTTGATATAGG-3'
0.5 µl Taq DNA polymerase 5U/ µl (2.5 U total)
1 µl DNA containing 80 ng of mouse genomic (tail) DNA.

Cycling conditions:
95°C, 2 min initial denaturation, followed by 40 cycles of
94°C, 15 s (denaturation)
54°C, 15 s (annealing)
72°C, 60 s (extension)

Result: As expected, electrophoresis of the PCR product on agarose gel revealed one band of 864 bp. passed

FOR RESEARCH USE

APPROVED DATE: 02.05.2022

Manager: Hana Těšitelová