

MedixMDx HS Taq DNA Polymerase (MX1102)

Introduction

MedixMDx HS Taq DNA Polymerase is a hot-start thermostable recombinant DNA polymerase expressed by *Thermus aquaticus*. The enzyme uses state-of-the-art hot-start antibody-based technology as well as optimized buffer chemistry for high sensitivity, yield, robust and rapid polymerase processivity. The enzyme is ideal for complex, difficult DNA templates and is resistant to PCR inhibitors.

Methods

a) MedixMDx HS Taq DNA Polymerase was used to amplify a 1 kb fragment of GAPDH gene. A serial dilution series of mouse genomic DNA (5 ng, 0.5 ng, 50 pg, 5 pg) was amplified using 40 cycles as per Table 1. 1/3 of the reaction volume was loaded in 1 % agarose gel.

Table 1. Thermal cycling conditions.

Step	Temperature	Time	Cycles
1.	95°C	2 min	40 cycles
2.	95°C	15 sec	
3.	63°C	15 sec	
4.	72°C	30 sec	

b) MedixMDx HS Taq DNA Polymerase was compared to three other suppliers. 5 ng of mouse genomic DNA was amplified using 40 cycles as per Table 2. Amplified fragments were GC-rich with the following length and CG-content:

- GAP 800 bp with 49 % GC
- ATX 500 bp with 69% GC
- ATX 600 bp with 71% GC

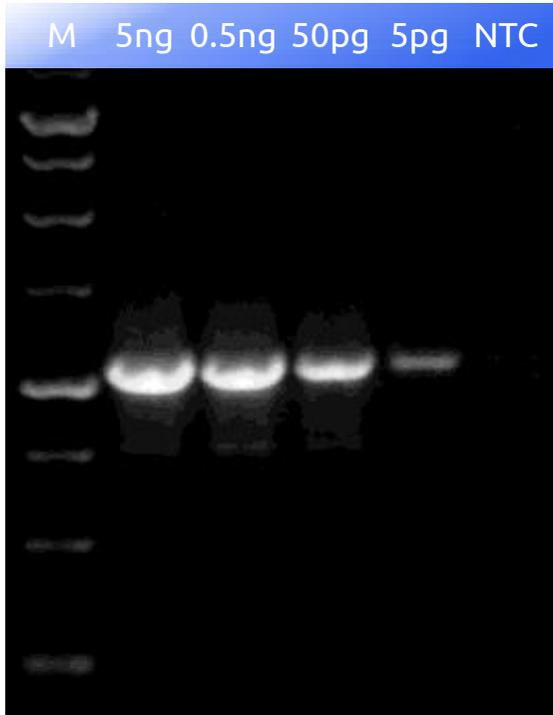
2/5 of the reaction volume was loaded in 1.2 % agarose gel.

Table 2. Thermal cycling conditions.

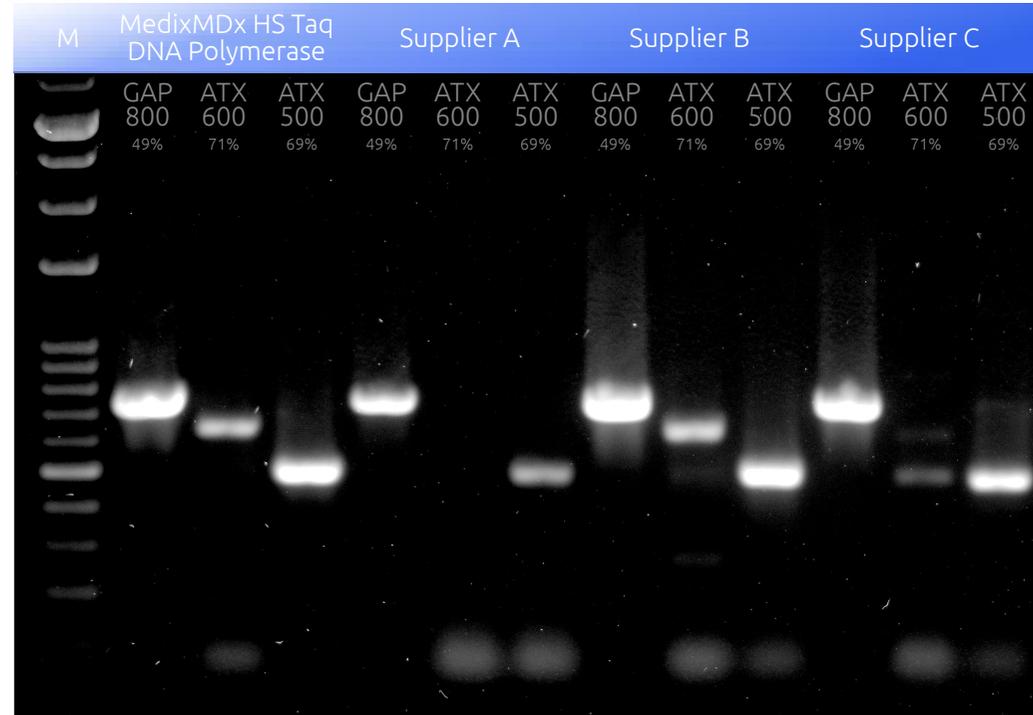
Step	Temperature	Time	Cycles
1.	95°C	5 min	40 cycles
2.	95°C	15 sec	
3.	60°C	15 sec	
4.	72°C	20 sec	

Results

a) M 5ng 0.5ng 50pg 5pg NTC



b)



Conclusions

- MedixMDx HS Taq DNA Polymerase can produce a PCR product from 5 pg DNA.
- MedixMDx HS Taq DNA Polymerase outperforms or equals to other suppliers at amplifying GC-rich fragments.

Contact us

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