

TargetEx Fine Taq Polymerase 10 mg/mL

Catalogue Number: TGX-032-BS/-BM/-BL

INTRODUCTION

TargetEx Fine Taq Polymerase 10 mg/mL is a thermostable enzyme derived from the bacterium *Thermus aquaticus*, which inhabits geothermal hot springs. It is primarily used in polymerase chain reaction (PCR) techniques to amplify specific DNA sequences, allowing the production of millions of copies from a small DNA sample.

TargetEx Fine Taq Polymerase is reliable for routine PCR and is well-suited for incorporation into various master mixes, including qPCR and RT qPCR formulations. The TargetEx Fine Taq Polymerase 10 mg/mL is a highly suitable option for lyo-ready applications.

Store the product at -20 °C.

COMPONENT LIST

Materials	Volume to 25 μ L (single measurement)	Recommended final concentration
Nuclease-Free Water (NFW)	17 μ L	N/A
10X Reaction Buffer	2.5 μ L	1X
Forward primer (10 μ M)	1 μ L	400 nM
Reverse primer (10 μ M)	1 μ L	400 nM
dNTP Mix (10 mM each)	0.5 μ L	200 nM each
DNA Template (100 ng)	2.5 μ L	10 ng/reaction
500X diluted TargetEx Fine Taq Polymerase 10 mg/mL	0.5 μ L	~2.5 U/reaction

PREPARATION

Prepare 500-fold dilution of the 10 mg/mL polymerase stock using the following buffer solution: 20 mM Tris, 100 mM KCl, 1 mM DTT, 0.1 mM EDTA, 0.5% Tween 20, pH 8. The final concentration will be ~ 5 U/ μ L. Use 0.5 μ L from this enzyme dilution for 25 μ L reaction volume.

TYPICAL REACTION ASSEMBLY

To test the enzyme in a standard PCR reaction, prepare a master mix according to the component list below. Mix the solution thoroughly, and after removing all visible bubbles by centrifuging the plate or tubes. Create a heat profile on your PCR device according to the thermal cycler program setup table below. We recommend using technical parallels.

THERMAL CYCLER PROGRAM SETUP

No.	Step	Temperature (°C)	Duration	
1	Initial Denaturation	95	3 min	} min. 25 cycles
2	Denaturation	95	30 sec	
3	Annellation	50-65	30 sec	
4	Extension	72	2 min/1 kbp	

If you need further information or would like to try our products, please do not hesitate to contact us at info@targetex.com.

