

Pfu DNA Polymerase

CATALOG #:	9003-500	500 units
	9003-2500	2500 units

DESCRIPTION:

BioVision's *Pfu* DNA Polymerase, combined with optimized buffer for high-fidelity and yield, provides the most accurate and consistent performance in PCR. BioVision's enzyme demonstrates up to 20 folds greater accuracy than other similar enzyme in the market. BioVision's *Pfu* DNA Polymerase can be used directly in any protocol requiring *Pfu* DNA Polymerase. The enzyme concentration and reaction buffer are already optimized for most published high-fidelity PCR protocols.

Components:

Contents	9003-500		9003-2500	
	Size	Part No.	size	Part No.
Pfu DNA Polymerase	500 units	9003-500-1	2500 units	9003-2500-1
10X Reaction Buffer	2 ml	9003-500-2	2 ml X 5	9003-2500-2

CONCENTRATION: 2.5 u/μl

UNIT DEFINITION:

One unit is defined as the amount of enzyme required to catalyze the incorporation of 10 nanomoles of dNTPs into acid insoluble material in 30 minutes at 74°C under standard DNA polymerase assay conditions.

ENZYME STORAGE BUFFER:

20 mM Tris-HCl, pH 8.0, 100 mM KCl, 0.1 mM EDTA, 1 mM DTT, 50% glycerol, 0.5% Tween 20, and 0.5% Nonidet P40.

STORAGE CONDITIONS: -20° C

10X BUFFER:

When diluted 1:10, this buffer contains 10 mM KCl, 20 mM Tris-Cl, pH 8.75, 2 mM MgSO₄, 10 mM (NH₄)₂SO₄, 1% Triton X-100, 0.1 mg/ml BSA. The buffer is supplied with Taq DNA polymerase (Cat.# 9001-500, -2500).

FOR RESEARCH USE ONLY! Not to be used on humans.

SUGGESTED PCR REACTION MIX:

For each 25 μl PCR reaction, mix the following components in a thin-walled PCR tube:

10X PCR Buffer	2.5 μl
dNTP Mix (2.5 mM each dNTP)	2.0 μl
Upstream Primer	0.1 – 0.6 μM
Downstream Primer	0.1 – 0.6 μM
Template DNA	2 – 250 ng
Pfu DNA Polymerase (2.5 u/μl)	0.625 units
Add H ₂ O to a total volume	25 μl

SUGGESTED PCR CYCLES:

Initial Denaturation:	94° C	120 sec.
Denaturation	94°C	30 sec.
Annealing	50-65° C	60 sec.
Elongation	72° C	30-180 sec.
Final Elongation	72° C	420 sec.

Note: For optimal specificity and amplification rate the temperature and cycling times should be optimized for each new target or primer pair.

RELATED PRODUCTS:

- InsertFinder Insert Quick Screening Kit
- Link-FAST™ 5 Minutes DNA Ligation Kit
- Gel-FAST™ 20 Minutes Gel Staining/Destaining Kit
- Mitochondrial DNA Isolation Kit
- Genomic DNA Isolation Kit
- InsertFinder™ PCR Quick Screening Kit
- Luciferase Reporter Assay Kit
- β-Galactosidase Staining Kit
- T4 DNA Ligase
- Agarase
- dNTP Mix
- Advanced Glycation Endproduct (AGE)-BSA
- siRNA Vectors
- Protease Inhibitor cocktail
- Apoptosis Detection Kits and Reagents
- Cell Fractionation Kits
- Cell Proliferation and Senescence Assay Kits