

DATA QUALITY SHEET



BioThermD- DNA Polymerase

FOR RESEARCH USE ONLY

Cat. GC-064-0100, GC-064-0250, GC-064-0500, GC-064-1000, GC-064-5000,

DESCRIPTION	BioThermD-™ DNA polymerase is a special purified DNA polymerase without any traces of <i>E. coli</i> DNA. It is optimal for the amplification and sequencing of 16S rRNA genes to identify bacteria.
CONCENTRATION	5 units/μl.
UNIT DEFINITION	One unit is defined as the amount of enzyme that incorporates 10 nmoles of dNTPs into acid-insoluble form in 30 minutes at 72°C under the assay conditions (25 mM TAPS (tris-(hydroxy-methyl)-methyl-amino-propa-nesulfonic acid, sodium salt) pH 9.3 (at 25°C), 50 mM KCl, 2 mM MgCl ₂ , 1 mM β-mercaptoethanol) and activated calf thymus DNA as substrate.
STORAGE BUFFER	10 mM K-phosphate buffer pH 7.0, 100 mM NaCl, 0,5 mM EDTA, 1 mM DTT, 0,01% Tween 20, 50% glycerol (v/v).
REACTION BUFFER	160 mM (NH ₄) ₂ SO ₄ , 670 mM Tris-HCl pH 8.8 (at 25°C), 15 mM MgCl ₂ , 0.1% Tween 20 The 10x reaction buffer (on request with or without MgCl ₂) is delivered free of charge. 1.5 ml 10x reaction buffer (contains 15 mM MgCl ₂) Cat. No. GC-002-006 1.5 ml 10x reaction buffer without MgCl ₂ plus 50 mM MgCl ₂ separately Cat. No. GC-002-007
STORAGE TEMPERATURE	Store BioThermD- Polymerase below 0°C preferably at -20°C, in a constant temperature freezer.
QUALITY CONTROL	BioThermD-™ DNA Polymerase was tested for the absence of unspecific endo- and exonucleases activities.
SHELF LIFE	2 years from date of receipt under proper storage conditions.
FUNCTIONAL ANALYSIS	Tested functionally in a unit activity test.