

DATA QUALITY SHEET



BioThermBio DNA Polymerase

FOR RESEARCH USE ONLY

Cat. GC-057-0100, GC-057-0250, GC-057-0500, GC-057-1000, GC-057-0500

DESCRIPTION	BioThermBio™ is a novel thermostable DNA polymerase that dramatically improves incorporation of Biotin- and Digoxigenin-dUTPs as compared to Taq DNA polymerase.
CONCENTRATION	5 units/μl.
UNIT DEFINITION	One unit is defined as the amount of enzyme that incorporates 10 nmoles of dNTPs into acidinsoluble form in 30 minutes at 72°C under the assay conditions (25 mM TAPS (tris-(hydroxy-methyl)-methyl-amino-pro-panesulfonic 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	Reaction buffer (10x): 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.
STORAGE TEMPERATURE	Store BioThermBio Polymerase below 0°C preferably at -20°C, in a constant temperature freezer.
ASSOCIATED ACTIVITIES	Endonuclease and exonuclease activities were not detectable after 2 and 1 hours incubation, respectively, of 1 μg lambda DNA and 0.22 μg of EcoRI digested lambda DNA, respectively, at 72°C in the presence of 15-20 units of BioThermBio Polymerase.
FUNCTIONAL ANALYSIS	Tested functionally in a unit activity test.