ENZYMES

Taq DNA Polymerase/ Anti-Taq/Tth HS Antibody

ORIGIN ***E.coli*** **(Recombinant)**

CAT# TAP/TCP Range
EC# 2.7.7.7

ENZYME SPECIFICATION

Concentration/Activity*	5 U/µL
Purity	≥90%
Endonuclease Activity	None detected
Nicking Activity	None detected

*One unit is defined as the amount of enzyme that will incorporate 10 nmoles of dNTP into an acid insoluble material in 30 min at 75°C.

HOTSTART ANTIBODY SPECIFICATION

Source	Mouse Hybridoma
Concentration	1mg/mL
Inhibition Activity**	≥95%
Mouse Genomic DNA Contamination	None detected

**Percentage (%) of Taq DNA polymerase activity supressed when 1.0 µg of antibody is added to 5 units of Taq DNA polymerase at 40°C

PRODUCT FORMAT

The enzyme is formulated in 20 mM Tris-HCl (pH 8.0), 100 mM KCl, 0.1 mM EDTA, 0.5% Nonidet P-40, 0.5% Tween 20, 50% Glycerol and stored at -20°C.

PART #	DESCRIPTION	CONTENT/FORMAT
TAP-211	Taq DNA Polymerase Kit A	0.05mL (250U) Taq DNA Polymerase 1mL 10x Buffer (+Mg) for Taq 1mL 2mM dNTPs
TAP-229E	Taq DNA Polymerase 10KU	2mL Taq DNA Polymerase (Bulk)
TAP-259E	Taq DNA Polymerase 100KU	20mL Taq DNA Polymerase (Bulk)
TAP-2M	10x Buffer (+Mg) for Taq	1mL 10x Buffer (+Mg) for Taq
TCP-101	Anti-Taq/Tth HS Antibody Kit	0.1mL (0.1mg) anti-Taq high 1mL 10x PCR Buffer anti-Taq high
TCP-139	Anti-Taq/Tth HS Antibody 30mg	30mL (30mg) anti-Taq high
TCP-189CH1	Anti-Taq/Tth HS Antibody 100mg	100mL (100mg) anti-Taq high

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ENZYME DESCRIPTION AND APPLICATION

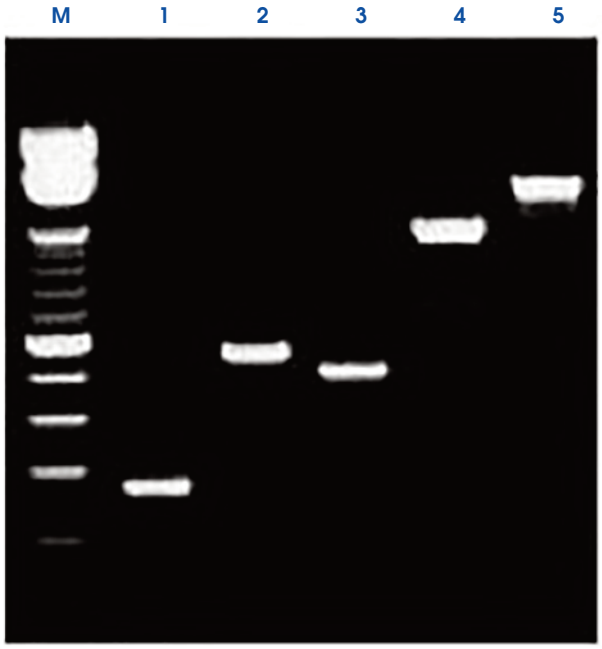
Taq DNA polymerase is the most widely used thermostable DNA polymerase derived from the thermophilic bacteria *Thermus aquaticus* (Taq) YT-1. The enzyme possesses a 5′→3′ polymerase activity and a double-strand specific 5′→3′ exonuclease activity.

CHARACTERISTICS

Enzyme Features:

- Tolerates various kinds of PCR protocols.
- Applicable for hot start technology by adding anti-Taq antibody.
- PCR products can be cloned by using a TA cloning method.
- Incorporates dUTP, dITP, and fluorescently-labeled nucleotides.

Application Data: Distinct and specific amplified bands from 180 bp to 1.3 kb genes from human genomic DNA were observed with rTaq DNA polymerase by 1% agarose gel electrophoresis.



M: 100bp Ladder
1: 180bp p53 exon8
2: 444bp p53 exon8
3: 408bp b-globin
4: 1kb b-globin
5: 1.3kb b-globin

TARGET:
Human β-globin gene (406bp-1.3kb)
Human p53 Exon 8 (180bp)

REACTION CONDITION:
see typical reaction set up

SAMPLE:
Human Genomic DNA 50ng

CYCLING CONDITION:
94°C 2min.
94°C 10sec. ←
55°C 30sec. — 35 cycles
68°C 1min./kb →

THE AMERICAS
Sekisui Diagnostics, LLC
4 Hartwell Place
Lexington, MA 02421
Phone: 800 332 1042
Fax: 800 762 6311

INTERNATIONAL
Sekisui Diagnostics (UK) Limited
Liphook Way, Allington
Maidstone, Kent, ME16 0LQ, UK
Phone: +44 1622 607800
Fax: +44 1622 607801

engage@sekisuienzymes.com
www.sekisuidiagnostics.com

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