

**Description:**

Tth DNA Polymerase is a thermostable enzyme that replicates DNA at 74 °C and exhibits a half-life of 20 minutes at 95 °C isolated from eubacterium *Thermus thermophilus* strain HB8.

Tth catalyzes the polymerization of nucleotides into duplex DNA in the 5'→3' direction in the presence of magnesium and the polymerization of nucleotides into DNA using an RNA template in the 5'→3' direction in the presence of manganese. The enzyme has a molecular weight of 94 000 daltons as estimated from the predicted amino acid sequence and exhibits 5'→3' exonuclease activity. Tth is recommended for use in PCR, RT-PCR, reverse transcription and primer extension reactions at elevated temperature.

**Features:**

The thermostability and the reverse transcriptase (RT) activity of Tth DNA polymerase is useful in amplifying DNA from RNA templates that contain G-C-rich sequences or secondary structures since the elevated temperatures serve to denature the template RNA. Higher temperatures (in contrast to other enzymes for RT-PCR) also result in increased specificity of primer hybridization and extension. The concentration of RNA template for effective reverse transcription with Tth DNA polymerase should be higher if to compare with reverse transcription directed by Reverse Transcriptase (M-MuLV, AMV).

**Order Information**

| Prod. No. | Description           | Quantity     |
|-----------|-----------------------|--------------|
| S9123     | Maximo Tth polymerase | 1x 250 Units |
| S9124     | Maximo Tth polymerase | 2x 250 Units |