

## Neo Gold Taq DNA Polymerase

### Features

- ❖ Monoclonal antibody reversibly blocks the polymerase activity.
- ❖ Amplification of wide range of DNA templates.
- ❖ Enhanced PCR efficiency, specificity, and sensitivity.
- ❖ Amplification of long targets up to 6.4kb genomic DNA.
- ❖ Detection of low copy number of target DNA.

### Applications

- ❖ Detection of infectious agents in patient samples, genetic analysis, and forensics.
- ❖ High throughput PCR screening.
- ❖ PCR-based DNA fingerprinting.
- ❖ Microarray analysis.

### Quality Control Assays

- ❖ **Nuclease assays:** No detectable endonuclease, exonuclease, and RNase activity.
- ❖ ***E. coli* host contamination:** No *E. coli* DNA contamination was detected in qPCR with specific primers targeting 16S rRNA gene.
- ❖ **Functional assay:** Neo Gold Taq DNA Polymerase tested extensively for its reproducible performance in critical PCR amplifications.

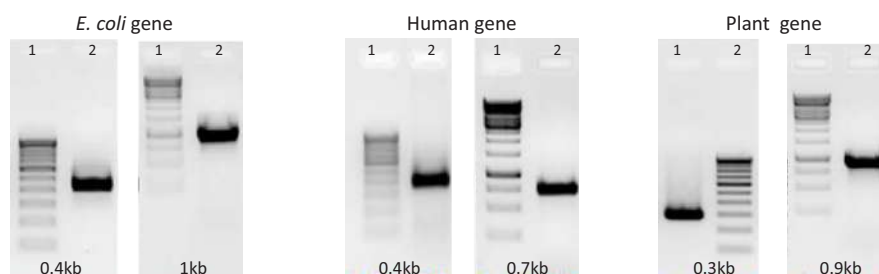
### Product Description

Neo Gold Taq DNA Polymerase is a premixed, ready-to-use 2x solution containing antibody-mediated hot-start NeoTaq DNA polymerase, dNTPs, MgCl<sub>2</sub>, enhancers and stabilizers for efficient amplification. Neo Gold Taq DNA Polymerase prevents non-specific product formation and allows polymerase chain reactions (PCR) to proceed at ambient temperature, which has been achieved using antibody modified polymerase.

### Characterization Studies

#### ➤ Amplification with multiple template sources

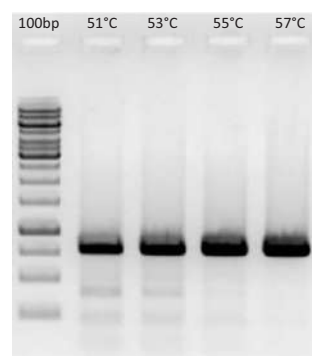
Genes of different sizes from various sources such as *Escherichia coli* (*E. coli*), plant, and human were amplified using 2x PCR master mix and six parallel amplifications were performed. The PCR products were analyzed under UV light after agarose gel electrophoresis. Amplification of the target gene was observed in all the samples.



Lane 1: Ladder; Lane 2: Respective PCR products

#### ➤ Tolerance of different primer T<sub>m</sub> value

The buffer composition was optimized to increase the stringency of primer-annealing conditions. The optimized buffer showed amplification of PCR products over a wider range of annealing temperatures.



## ISO9001:2015



## ISO13485:2016



## Contact us

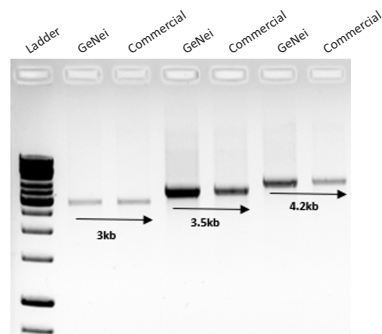
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## Benchmarking Studies

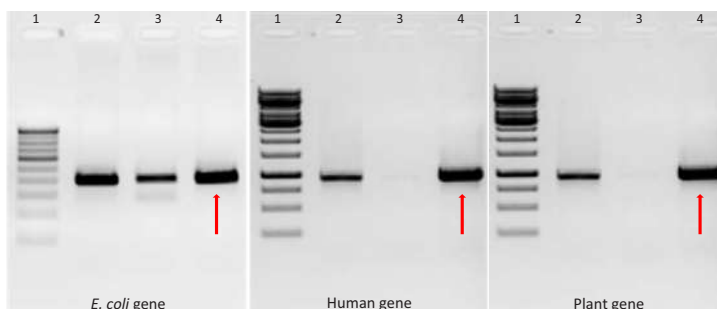
### ➤ Specific amplification of long PCR products

Neo Gold Taq DNA Polymerase and commercial was evaluated for genes of different sizes from various sources. After PCR reaction, 10% of PCR products were loaded onto agarose gel for analysis. The intensity of the amplified products with Neo Gold Taq DNA Polymerase was found to be higher compared to commercial.



### ➤ Amplification of PCR products less than 1kb

Neo Gold Taq DNA Polymerase, commercial 1, and commercial 2 were also tested for genes less than 1kb from various sources. Based on agarose gel electrophoresis, intense amplified products were observed with Neo Gold Taq DNA Polymerase. No amplification was observed with commercial 1 for human and plant genes.



Lane 1: Ladder; Lane 2: Commercial 1, Lane 3: Commercial 2, Lane 4: GeNei

## Ordering Information

Catalogue No.	PI No.	Product Description	Pack Size
0605610011730	MME56GS	Neo Gold Taq DNA Polymerase (1 U/μl), 100 Units (Includes Enzyme, Assay buffers: 2 vials, 25mM MgCl <sub>2</sub> : 1 vial and Magic Solution: 1 vial)	100U
0605610021730	MME56GL	Neo Gold Taq DNA Polymerase (1 U/μl), 250 Units (Includes Enzyme, Assay buffers: 2 vials, 25mM MgCl <sub>2</sub> : 1 vial and Magic Solution: 1 vial)	1000U
0605610031730	MME56GJ	Neo Gold Taq DNA Polymerase (1 U/μl), 1000 Units (Includes Enzyme, Assay buffers: 2 X 4 vials, 25mM MgCl <sub>2</sub> : 1 vial and Magic Solution: 1 vial)	1000U
0605710011730	MME57S	Neo Gold Taq DNA Polymerase (3 U/μl), 100 Units (Includes Enzyme, Assay buffers: 2 vials, 25mM MgCl <sub>2</sub> : 1 vial and Magic Solution: 1 vial)	100U
0605710021730	MME57L	Neo Gold Taq DNA Polymerase (3 U/μl), 250 Units (Includes Enzyme, Assay buffers: 2 vials, 25mM MgCl <sub>2</sub> : 1 vial and Magic Solution: 1 vial)	250U
0605710031730	MME57J	Neo Gold Taq DNA Polymerase (3 U/μl), 1000 Units (Includes Enzyme, Assay buffers: 2 X 4 vials, 25mM MgCl <sub>2</sub> : 1 vial and Magic Solution: 1 vial)	1000U