

## NesTaq™ Ab Master Mix

### 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:** NesTaq™ Ab Master Mix tested extensively for its reproducible performance in critical PCR amplifications.

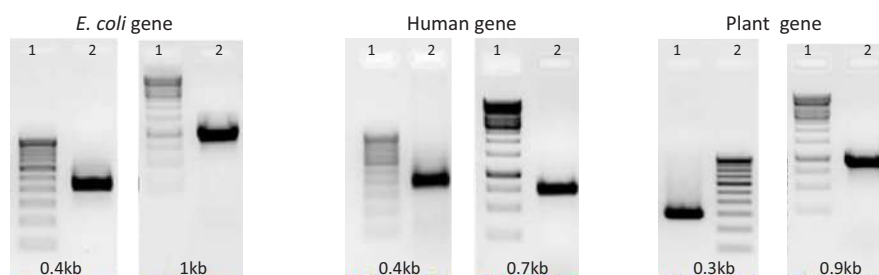
### Product Description

NesTaq™ Ab Master Mix 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. NesTaq™ Ab Master Mix 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

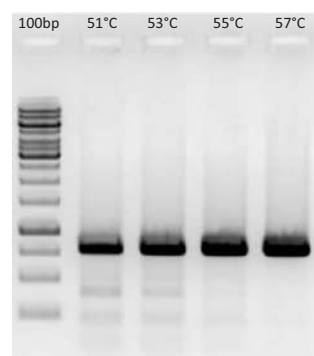
Genes of different sizes from various sources such as *Escherichia coli* (*E. coli*), plant, and human were amplified using NesTaq™ Ab Master Mix and six parallel amplifications were performed. The PCR products were analyzed under UV light after agarose gel electrophoresis. Amplification of the target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



Lane 1: Ladder; Lane 2: Respective PCR products using NesTaq™ Ab Master Mix

#### ➤ 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



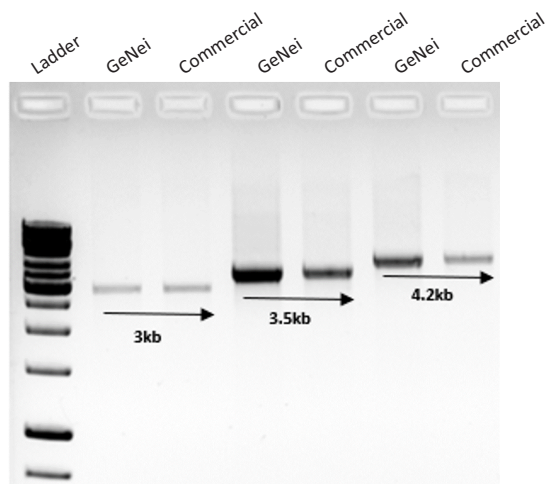
## ISO13485:2016



## Benchmarking Studies

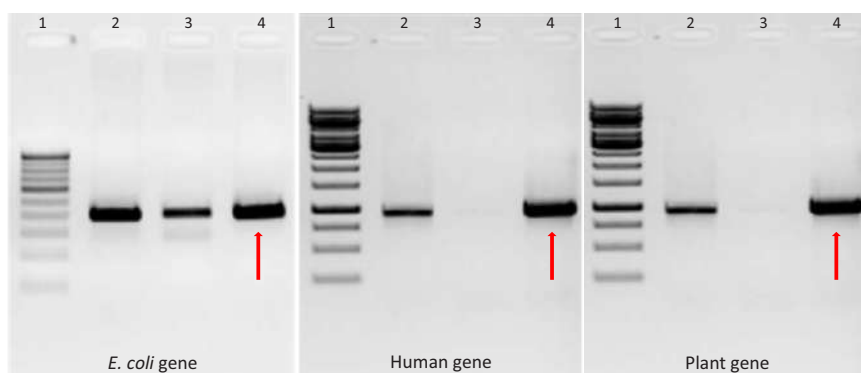
### ➤ Specific amplification of long PCR products

NesTaq™ Ab Master Mix 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 NesTaq™ Ab Master Mix was found to be higher compared to commercial.



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

NesTaq™ Ab Master Mix, 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 NesTaq™ Ab Master Mix. 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: NesTaq™ Ab Master Mix

## Contact us

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## Ordering Information

Cat. No.	PI No.	Product Description	Pack Size
0606300021730	MME63L	NesTaq™ Ab Master Mix ( 2X), 1 x 100 rxns (25 µl/rxn)	100 rxns
0606300031730	MME63J	NesTaq™ Ab Master Mix (2X), 5 x 100 rxns (25 µl/rxn)	500 rxns