Certificate of Analysis

Taq HotStart KeenGreen 2X Master Mix

Catalog #	Size
IB43130	10 Reactions
IB43131	100 Reactions
IB43132	500 Reactions
IB43133	1000 Reactions

Lot No.: 073117002

Concentration: 2X

Storage: Store at -20°C upon arrival. Minimize number of freeze/thaw cycles by storing in working aliquots.

Product Description: IBI Taq HotStart KeenGreen 2X Master Mix is a 2X ready-to-use master mix that contains IBI Taq HotStart DNA Polymerase; a chemically modified HotStart Taq DNA Polymerase with an activation time of 2 minutes at 94°C, 400µM dCTP, 400µM dGTP, 400µM dATP, 400µM dTTP, and 3mM $MgCl_2$. The Taq DNA Polymerase gene is isolated from *Thermus aquaticus* YT1 and expressed in *E.coli*. The recombinant Taq DNA Polymerase shows identical characteristics to native *Taq* from *Thermus aquaticus*.

IBI's Taq HotStart KeenGreen 2X Master Mix contains loading dyes (~4Kb and <25bp) that make the monitoring process during electrophoresis easy, and a density agent that allows reactions to be loaded directly onto agarose gels. These dyes do not obscure visualization of reactions, as the bands run outside most products.

Assay Name / Specification	Pass?
Quality Control Assays The following Quality Control Tests are performed on each new lot and meet the specifications designated for the product.	
• **DNase and RNase Activity:** IBI Taq HotStart KeenGreen 2X Master Mix is tested for nuclease degradation in reactions containing a DNA or RNA substrate. After incubation for 1 hour there is no detectable degradation of the DNA or RNA substrate as determined by agarose gel electrophoresis.	PASS
• **Functional Assay:** IBI Taq HotStart KeenGreen 2X Master Mix is tested for performance in the polymerase chain reaction (PCR) using 25 and 10 µl reaction volumes. Reactions containing the master mix, control template DNA and specific primers resulted in the expected product for both *E. coli* and Human gDNA.	PASS
• **Contamination Assay** IBI Taq HotStart KeenGreen 2X Master Mix is used as the template in qPCR reactions using Universal 16S ribosomal primers that have specificity to both *E. coli* and Human gDNA. No *E. coli* or Human gDNA are detected before 30 cycles.	PASS

This signature indicates that the above material has met all quality specifications and has been reviewed by a quality representative.

Signature: *Toby Frericks*

Date: 08/01/17

Research Use Only. Not for Use in Diagnostic Procedures.