ig™ SYBR Green qPCR 2X Master Mix

Description

Ig SYBR® Green qPCR 2x master mix is a ready-to-use cocktail containing all components except primers and template, for the amplification and detection of DNA in qPCR. The Ig SYBR® Green qPCR 2x master mix with integrated chemically-modified hot start Taq DNA polymerase, SYBR® Green I fluorescent dye, ROX dye, MgCl2, dNTPs and stabilizers. This master mix is ideal for high-throughput real-time PCR screening and validation. The amplification step features a high quality hot start Taq DNA Polymerase which offers higher fidelity and better amplification.

Applications

- Gene expression data validation.
- Absolute quantification
- Mutation detection
- Pathogen detection
- Viral detection
- Genetically modified organisms (GMO) characterization
- Genetic profiling

Benefits

- Enhanced efficiency, specificity, and sensitivity
- Compatible with all real-time PCR instruments
- Superior gene expression results under various cycling conditions
- Robust and active for cDNA synthesis at temperatures up to 55 °C.

Product Includes

1) ig™ SYBR Green qPCR 2x Master Mix

Storage Temperature

–20 °C

Protocol

1. Place kit components, primers and RNA samples on ice.
2. Mix and then centrifuge briefly to collect contents at the bottom of the tube.
3. Prepare a master mix for each reaction and control plus 10% extra to allow for pipetting error according to the following table:

PCR reaction set up:	
Diluted cDNA	1-5 µl
Forward primer (5 µM)	1.0 µl
Reverse primer (5 µM)	1.0 µl
ig™SYBR Green qPCR 2x master mix	10.0 µl
H_2O up to	20.0 µl

4. Mix the reaction mixture thoroughly.
5. Program the thermal cycler according to the manufacturer's instructions.
6. A typical PCR cycling program is outlined in the following table.

PCR Cycling Conditions:			
Steps	Temperature	Time	Cycles
Initial denaturation	95 ºC	15 min	1
Denaturation	95 ºC	5 sec	30-40
Annealing/Extension**	~60 ºC	30 sec	
Melting curve analysis	According to instrument guidelines		

7. Place the PCR tubes in the thermal cycler and start the cycling program.
8. Analyze the data according to manufacturer protocol.

** For 3 step cycling protocols, anneal at optimal annealing temperature for 30 sec followed by the minimum time required for data acquisition at 72 ºC according to instrument guidelines.