2x qPCR MasterMix (Low ROX)

Cat. No.	Product Description	Size
QP02-00	2xqPCR Master Mix (Low ROX)	1 ml
QP02-01	2xqPCR Master Mix (Low ROX)	5x1 ml
QP02-01	2xqPCR Master Mix (Low ROX)	50 ml

Description

This product is a Hot Start DNA polymerase-based 2 x master mix for real-time PCR, which contains all components, except for the primers. This reagent is applicable for intercalation assay with SYBR® Green I.

Features

- This reagent can be used in glass capillary systems (e.g., Light Cycler, Roche Molecular Systems, Inc.).
- This reagent can be used in a passive reference system (e.g., ABI PRISM®7700, Applied Biosystems, Inc.). The passive reference dye does not affect any other systems.
- Hot Start technology with anti-Taq DNA polymerase antibodies enables high specificity and reproducible amplification.

Components in 2xqPCR Master Mix

Hot Start DNA polymerase, PCR buffer, $MgCl_2$, dNTPs, SYBR Green I, ROX and the stabilizing agent.

Detection

- This reagent can be used in general detection devices, such as: LineGene (Bioer Technology co., ltd.)
- This reagent can also be used in detection equipment using glass capillaries or passive reference, such as: LightCycler (Roche Molecular Systems); ABI PRISM® 7500, 7500 Fast, Stratagene MX3000/MX3005P, Corbett Rotor Gene 3000 and systems needs low ROX signal.

Note: The passive reference mode of detectors should be set at "ROX" when needed.

Storage

This reagent can be stored at 4°C for 2 months and protected from light. For longer storage, this reagent should be kept at -20°C and protected from light.

Protocol

This is a general protocol for qPCR. For specific detection devices, this protocol may require modification depending on each instruction manual.

1. **Preparation of reaction solution:** Add all the solution in a thin walled PCR tube on ice.

Component of sample	Volume	Final concentration
2xqPCR Master Mix (with ROX)	25 µl	1X
Forward Primer (10 µM)	1 µl	0.2 µM
Reverse Primer(10 µM)	1 µl	0.2 µM
Template DNA*	variable	10 pg-1 µg
Water, nuclease-free	to 50 µl	–

Note: *The primer concentration can be further optimized if needed. The optimal range for primers is 0.2~0.6µM.*

2. **Preform PCR using the following thermal cycling conditions.**

Initial Denaturation	95℃	10 min
35-45 cycles	95℃ 60℃	15 sec 60 sec
Melting curve analysis		

***Recommendations with Template DNA in a 50µl reaction volume**

Human genomic DNA	0.1µg-1µg
Plasmid DNA	0.5ng-5ng
Phage DNA	0.1ng-10ng
E.coli genomic DNA	10ng-100ng