

# TransNGS<sup>®</sup> Library Quantification qPCR SuperMix

Cat. No. KQ201

Storage: at -20°C in dark for one year

## Description

TransNGS<sup>®</sup> Library Quantification qPCR SuperMix is a ready-to-use qPCR cocktail. It contains a novel *TransStart<sup>®</sup> TipTaq* DNA Polymerase, unique hot start reagents (DNA binding proteins combined with unique chemical), EvaGreen, dNTPs, PCR Enhancer, PCR stabilizer and optimized reaction buffer suitable to NGS library quantification. TransNGS<sup>®</sup> Library Quantification qPCR SuperMix enables accurate library amplification with various GC contents. It's provided at 2× concentration and can be used at 1× concentration by adding template, primer, passive reference dye (optional) and Nuclease-free Water.

## Highlights

- Accurate library amplification with various GC contents Much stronger and more reliable signal with EvaGreen fluorescent dye.
- Passive Reference Dyes for different qPCR instruments.

## Kit Contents

Component	KQ201-01	KQ201-02
TransNGS <sup>®</sup> Library Quantification qPCR SuperMix (2×)	1 ml	5×1 ml
Library Quantification Primer Mix (20×)	100 µl	500 µl
Passive Reference Dye (50×)	40 µl	200 µl
Nuclease-free Water	1 ml	5 ml

## Reaction Components and Thermal Cycling Conditions (20 µl)

Component	Volume	Final Concentration
Template (DNA Library)	Variable	as required
TransNGS <sup>®</sup> Library Quantification qPCR SuperMix (2×)	10 µl	1×
Library Quantification Primer Mix (20×)	1 µl	1×
Passive Reference Dye (50×) (optional)	0.4 µl	1×
Nuclease-free Water	Variable	-
Total	20 µl	-

(We suggest to use reaction volume of 20 µl and use 10<sup>1</sup>-10<sup>7</sup> copies of DNA template)

### Two-step qPCR

95°C 5 min  
 95°C 25 sec  
 60°C 45 sec } 35 cycles

Dissociation Stage

### Three-step qPCR

95°C 5 min  
 95°C 20 sec  
 60°C 20 sec  
 72°C 30 sec } 35 cycles

Dissociation Stage

#### Notes

- Please select the "EvaGreen" or "SYBR Green" channel to collect signal.
- Two-step qPCR is recommended for library with medium GC contents and the library size is less than 700 bp.
- For library with high or low GC contents, it is recommended to use three-step qPCR.
- *TransNGS*<sup>®</sup> Library Quantification qPCR SuperMix is optimized for amplicon less than 1 kb.
- For library with an average length longer than 700 bp, we suggest to use three-step method and increase the extension time to 50 seconds.

#### Passive Reference Dye

- Passive Reference Dye I (50×)  
ABI Prism7000/7300/7700/7900, Eppendorf, ABI Step One, ABI Step One Plus
- Passive Reference Dye II (50×)  
ABI Prism7500, ABI Prism7500 Fast, ABI Q6, ABI Quant Studio 6/7 Flex, ABI ViiA 7, Stratagene Mx3000/Mx3005P, Corbett Rotor Gene 3000
- No Passive Reference Dye  
Roche LightCycler480, Roche Light Cycler96, MJ Research Chromo4, Opticon (II), Takara TP800, Bio-Rad iCycler iQ, iQ5, Bio-Rad CFX96, Bio-Rad C1000 Thermal Cycler, Thermo Pikoreal 96, Corbett Rotor Gene 6000, Corbett Rotor Gene G, Corbett Rotor Gene Q

FOR RESEARCH USE ONLY