

RbTaq™ Fast qPCR 2X PreMIX (SYBR Green with low ROX)

Cat.#	Size
RT540S	200 reaction (1 ml X 2)
RT540M	500 reaction (1 ml X 5)

Expire date:
Store at -20°C

Supplied with: Sterile water (RNase free)

Product description

RbTaq™ Fast qPCR 2X PreMIX (SYBR Green with low ROX) is a preassembled liquid mixture that contains genetically engineered high-speed hot-start Taq, optimal reaction buffer, dNTP, stabilizing agents, ROX reference dye and SYBR Green I dye. RbTaq™ Fast qPCR 2X PreMIX (SYBR Green with low ROX) is a repebody (Rb) mediated hot start method of Taq DNA polymerase. In the hot start method, engineered Taq DNA polymerase is combined with a repebody that specifically binds to the enzyme and inactivates until the first denaturation step. Thus, RbTaq™ Fast qPCR 2X PreMIX (SYBR Green with low ROX) is suitable for fast PCR and designed to have enhanced specificity, sensitivity and amplification efficiency of various targets with the highest fluorescence signals.

Characteristics

- Fast and High performance qPCR : Genetically engineered *Taq* and optimized buffer system enable to quickly and accurately detect in less than 40 mins
- Resistance to various PCR inhibitors
- Stability : Enhanced stability allows one year storage at -20°C
- Easy-to-use : RbTaq™ Fast qPCR 2X PreMIX (SYBR Green with low ROX) contains everything needed except for primers, template
- High reproducibility is ensured by rigorous quality control

For Research Use Only. Not for use in diagnostic procedures.

ISO9001 ISO14001 ISO13485

RbTaq™ Fast qPCR 2X PreMIX (SYBR Green with low ROX)

Cat.#	Size
RT540S	200 reaction (1 ml X 2)
RT540M	500 reaction (1 ml X 5)

Expire date:
Store at -20°C

Supplied with: Sterile water (RNase free)

Product description

RbTaq™ Fast qPCR 2X PreMIX (SYBR Green with low ROX) is a preassembled liquid mixture that contains genetically engineered high-speed hot-start Taq, optimal reaction buffer, dNTP, stabilizing agents, ROX reference dye and SYBR Green I dye. RbTaq™ Fast qPCR 2X PreMIX (SYBR Green with low ROX) is a repebody (Rb) mediated hot start method of Taq DNA polymerase. In the hot start method, engineered Taq DNA polymerase is combined with a repebody that specifically binds to the enzyme and inactivates until the first denaturation step. Thus, RbTaq™ Fast qPCR 2X PreMIX (SYBR Green with low ROX) is suitable for fast PCR and designed to have enhanced specificity, sensitivity and amplification efficiency of various targets with the highest fluorescence signals.

Characteristics

- Fast and High performance qPCR : Genetically engineered *Taq* and optimized buffer system enable to quickly and accurately detect in less than 40 mins
- Resistance to various PCR inhibitors
- Stability : Enhanced stability allows one year storage at -20°C
- Easy-to-use : RbTaq™ Fast qPCR 2X PreMIX (SYBR Green with low ROX) contains everything needed except for primers, template
- High reproducibility is ensured by rigorous quality control

For Research Use Only. Not for use in diagnostic procedures.

ISO9001 ISO14001 ISO13485

Applications

- Fast real-time quantification of gDNA and cDNA targets
- Gene expression profiling
- Microbial & viral pathogen detection

Standard reaction conditions

- PCR mixture

RbTaq™ Fast qPCR 2X PreMIX (SYBR Green with low ROX)	10 µl
Template DNA (<100 ng)	1 µl
Primers 1 (5~10 pmol/µl)	1 µl
Primers 2 (5~10 pmol/µl)	1 µl
Sterile water (RNase free)	up to 20 µl

- PCR cycle

Initial denaturation ^a	95°C	3 min
Denaturation	95°C	≤10 sec
Annealing/extension	60°C	≤10 sec
Number of cycles	~35 times	
^a 30 sec at 95°C for cDNA and 3 min at 95°C for genomic DNA is recommended for enzyme activation.		

※ROX final concentration for different instruments

		Real Time PCR Instrument
Low ROX	ABI	7500, 7500Fast, ViiA 7, QuantStudio™ 6, QuantStudio™ 7, QuantStudio™ 12K Flex
	Bio-Rad	iCycler, MyiQ, MiQ 2, iQ 5, CFX96, CFX384, Chromo4, MJOpticon, Opticon 2, MiniOpticon
	Cepheid	SmartCycler
	Eppendorf	Mastercycler
	illumina	Eco Real-Time PCR System
	QIAGEN	Rotor-Gene Q, Rotor-Gene 3000, Rotor-Gene 6000
High ROX	Roche	LightCycler 480, LightCycler 2.0
	Stratagene	MX4000P, MX3000P, MX3005P
High ROX	ABI	5700, 7000, 7300, 7700, 7900, 7900HT, 7900HTFast, StepOne, StepOnePlus

Applications

- Fast real-time quantification of gDNA and cDNA targets
- Gene expression profiling
- Microbial & viral pathogen detection

Standard reaction conditions

- PCR mixture

RbTaq™ Fast qPCR 2X PreMIX (SYBR Green with low ROX)	10 µl
Template DNA (<100 ng)	1 µl
Primers 1 (5~10 pmol/µl)	1 µl
Primers 2 (5~10 pmol/µl)	1 µl
Sterile water (RNase free)	up to 20 µl

- PCR cycle

Initial denaturation ^a	95°C	3 min
Denaturation	95°C	≤10 sec
Annealing/extension	60°C	≤10 sec
Number of cycles	~35 times	
^a 30 sec at 95°C for cDNA and 3 min at 95°C for genomic DNA is recommended for enzyme activation.		

※ROX final concentration for different instruments

		Real Time PCR Instrument
Low ROX	ABI	7500, 7500Fast, ViiA 7, QuantStudio™ 6, QuantStudio™ 7, QuantStudio™ 12K Flex
	Bio-Rad	iCycler, MyiQ, MiQ 2, iQ 5, CFX96, CFX384, Chromo4, MJOpticon, Opticon 2, MiniOpticon
	Cepheid	SmartCycler
	Eppendorf	Mastercycler
	illumina	Eco Real-Time PCR System
	QIAGEN	Rotor-Gene Q, Rotor-Gene 3000, Rotor-Gene 6000
High ROX	Roche	LightCycler 480, LightCycler 2.0
	Stratagene	MX4000P, MX3000P, MX3005P
High ROX	ABI	5700, 7000, 7300, 7700, 7900, 7900HT, 7900HTFast, StepOne, StepOnePlus