RealHelix™ 1-sec qRT-PCR Kit [Probe] [UDG System] (Ver. 2B)

Kit Contents

RealHelix™ 1-sec qRT-PCR Kit [Probe] [UDG System] (Ver. 2B)		
Cat. No.	**SQRU2B-P200** (200rxns)	**SQRU2B-P500** (500rxns)
1-sec qRT-PCR 2x Premix [Probe] [UDG] (V2B)	1ml x 2ea	1ml x 5ea
ROX Dye (25μM)	0.2ml	0.5ml
Instructions for Use	1ea	1ea

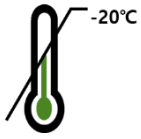
Description

RealHelix™ 1-sec qRT-PCR Kit [Probe] [UDG System] (Ver. 2B) is a 2x premix for qRT-PCR assay using fluorescent probe-based detection. This premix effectively delivers reproducible, reliable detection of up to five RNA targets by fast multiplex in a single tube reaction (FAST: 45 min/40 cycles or ULTRAFAST: 25 min/40 cycles). The combination of enzymes (antibody-inhibited hot-start *Taq*, reverse transcriptase, RNase inhibitor, heat-labile UDG) and Nanohelix's unique buffers (including dNTP(U)s, Mg^{2+}, and a stabilizing agent) in the ready-to-use premix provides outstanding speed, specificity, and sensitivity of the real-time assay. The applied UDG system prevents the carryover contamination of products from previous reactions.

Application

Quantification of target RNA By real-time RT-PCR

Storage



Store below -20℃.
※ ROX Dye should be stored in the dark.

Shelf life

12 months

NanoHelix Co., Ltd.

F711-1(Rev.0)

A-dong and B-dong, 43-15, Techno 5-ro, Yuseong-Gu, Daejeon, 34014, Republic of Korea TEL : 82-42-867-9055, FAX : 82-42-867-9057

E-mail : info@nanohelix.net <www.nanohelix.net www.nanohelix.net/KOR>

Quality control

By Nanohelix's ISO 13485-certified quality management system, each lot of **RealHelix™ 1-sec qRT-PCR Kit [Probe] [UDG System] (Ver. 2B),** was tested against predetermined specifications to ensure consistent product quality.

Protocol

1. **Program a real-time PCR instrument as follows to synthesize cDNA and PCR amplification. Set up the excitation and emission maxima suitable to the fluorescent probe chemistry.**

Standard reaction*

Step	Condition		Cycle(s)
[Optional] UDG Reaction**		20 ~ 25℃ for 5 min	1
cDNA Synthesis		50℃ for 30 min	1
PCR Enzyme activation		95℃ for 5 min	1
PCR Amplification	Denaturation	95℃ for 15 sec	40
	Annealing & Extension	60℃ for 1 min **Collect the fluorescence data**	

Fast reaction*

Step	Condition		Cycle(s)
[Optional] UDG Reaction**		20 ~ 25℃ for 5 min	1
cDNA Synthesis		50℃ for 10 min	1
PCR Enzyme activation		95℃ for 2 ~ 5 min	1
PCR Amplification	Denaturation	95℃ for 1 ~ 10 sec	40
	Annealing & Extension	60℃ for 1 ~ 30 sec **Collect the fluorescence data**	

* The reaction conditions could be modified and optimized to the system used.

** The UDG reaction step is not essential because UDG can efficiently remove the carryover contaminant DNA during the preparation of the RT-PCR mixture and cycler ramping.

2. **Add the following components in a PCR tube for a single 20µl reaction.**

Components	Volumes
Template RNA	5.0µl
1-sec qRT-PCR 2x Premix [Probe] [UDG] (V2B)	10.0µl
Forward primer (5µM)	1.0µl
Reverse primer (5µM)	1.0µl
Probe (2.5µM)	1.0µl
ROX Dye (25µM)	Optional*
RNase-free Water	Adjust to final 20µl

* Use the recommended amount of ROX Dye (Passive Reference) depending on the instrument.

3. **Gently mix and briefly centrifuge the reaction mix.**

4. **Perform real-time RT-PCR.**

Products

Cat. No.	Products	Size
SQRU2B-P200	RealHelix™ 1-sec qRT-PCR Kit [Probe] [UDG System] (Ver. 2B)	200rxns
SQRU2B-P500	RealHelix™ 1-sec qRT-PCR Kit [Probe] [UDG System] (Ver. 2B)	500rxns

A-dong and B-dong, 43-15, Techno 5-ro, Yuseong-Gu, Daejeon, 34014, Republic of Korea TEL : 82-42-867-9055, FAX : 82-42-867-9057
E-mail : info@nanohelix.net <www.nanohelix.net www.nanohelix.net/KOR>