

HyperScript™ 2X RT Master Mix

Ver 3.0

Protocol

Cat. No. 601-710 (0.5 ml x 2 tubes)

Storage at -20°C

Disclaimer

For research use only. Not for use in diagnostic or therapeutic procedures.

Description

HyperScript™ 2X RT Master Mix is recombined base on Reverse Transcriptase derived from M-MLV (Moloney Murine Leukemia Virus), and is characterized by high efficiency of cDNA synthesis with optimal activity at 50°C.

This master mix contains all components required for reverse transcription reaction, such as reaction buffer, dNTPs, RNase inhibitor and stabilizer in addition to the enzyme which is an advanced version of M-MLV reverse transcriptase. The contained M-MLV reverse transcriptase has an increased thermal-stability, high accuracy and productivity.

This master mix is stable for 1 year at -20°C. It is controlled various reaction volume according to purpose. Therefore, this master mix serves time-saving, cost-effective experiment.

Components

Cat. No.	601-710
HyperScript™ 2X RT Master Mix	0.5 ml x 2 tubes
Oligo (dT) ₂₀ (50 pmol/μl)	0.1 ml x 1 tube
Random hexamer (50 pmol/μl)	0.1 ml x 1 tube

Storage Conditions

Stable for 1 year at -20°C.

Ingredients of HyperScript™ 2X RT Master Mix

M-MLV reverse transcriptase (RNase H⁻)

Reaction buffer

dNTPs

Stabilizer (DTT)

RNase inhibitor

1. Prepare one of the following RNA template & primer
RNA template can be prepared using hand-made or commercial reagents. Pure RNA has a 1.8 - 2.1 of A_{260/280} or 1.9 - 2.2 of A_{260/230} ratio. If not, the result may not be good.

RNA template & primer			
RNA	Total RNA	1 ng ~ 5 μg	- μl
	mRNA	1 ~ 250 ng	
Primer	50 μM Oligo (dT) ₂₀		1 μl
	50 μM Random hexamer		
	Specific primer (15 ~ 20 pmoles)		

2. Reaction mixture

Components	Volume
Template RNA	- μl
Primer	1 μl
HyperScript™ 2X RT Master Mix	10 μl
Add D.W. to	20 μl

※ Optional : before adding the HyperScript™ 2X RT Master Mix, preheat the mixture at 55°C for 5 minutes and cool on ice. It can accelerate the reaction by denaturing the secondary structure of RNA.

3. Reaction conditions

Primer	Temperature	Time
Oligo (dT) ₂₀ or Specific primer	42°C	5 min
	42~55°C (recommended 50°C)	60 min
	95°C	5 min
	25°C	10 min
Random hexamer	42~55°C (recommended 50°C)	60 min
	95°C	5 min