

## ONE-STEP RT-PCR Premix Kit

**BRAND QUALITY, NO !  
GENUINE QUALITY, YES !**

iNtRON Gives You Optimal SATISFACTION !

CAT. 25101 (50 Rxn.)  
CAT. 25102 (200 Rxn.)



The iNtRON ONE-STEP RT-PCR Premix Kit is developed for convenient and sensitive one-step RT-PCR using any RNA templates. This kit ensures high efficient reverse transcription and PCR in one tube.

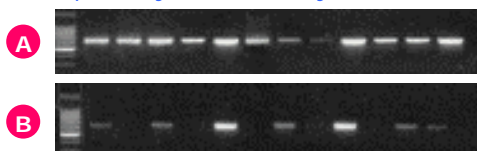
And more, no need to prepare the master mix. The iNtRON ONE-STEP RT-PCR Premix Kit contains all reagents in one tube.



**Fig. RT-PCR Amplification**

Total RNA was purified from viral RNA using iNtRON's kit (Cat. 17151). Then, the one-step RT-PCR reaction was performed. Lane 1, Newcastle disease virus HN (100 bp); lane 2, Hog cholera virus NCR (500bp); lane 3, Infectious bursal disease virus VP2 (500bp); lane 4, Bfl-1 (570bp), Bcl-2 family; lane 5, Human  $\beta$ -actin (890bp); lane 6, hnRNP (900bp), alternative splicing factor

- No preparation of master mix
- RT reaction & PCR reaction, ONE-STEP
- Designed for convenient use
- Unique blend of OptiScript™ RT and i-MAX™ DNA polymerase for high specificity and sensitivity



**Fig. Sensitivity and Specificity**

RT-PCR was carried out with various samples infected by foot-and-mouth disease virus using different RT-PCR kits according to supplier's specification.

A: iNtRON's ONE-STEP RT-PCR Premix Kit  
B: Supplier Q RT-PCR Kit

## OptiScript™ RT (Reverse Transcriptase) Kit

CAT. 27071 (50 Rxn.)



For 50 reverse-transcription reactions:  
200 units OptiScript™ Reverse Transcriptase,  
10x RT Buffer, DTT, RNase-free water

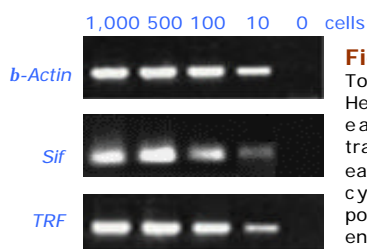
CAT. 27072 (200 Rxn.)

For 200 reverse-transcription reactions:  
800 units OptiScript™ Reverse Transcriptase,  
10x RT Buffer, DTT, RNase-free water

The iNtRON OptiScript™ Reverse Transcriptase (RT) is a DNA polymerase that synthesizes a complementary DNA strand from single-stranded RNA, DNA, or an RNA:DNA hybrid.

The OptiScript™ RT is developed for all reverse transcription with very small amounts of RNA (<50ng). A higher affinity for RNA results in higher sensitivity and outstanding performance even low copy numbers.

- Higher first-strand cDNA yields than other suppliers' RTs.
- More full-length cDNA synthesis than other suppliers' RTs.
- Best activity at 42 °C, however active up to 45 °C.
- High sensitivity



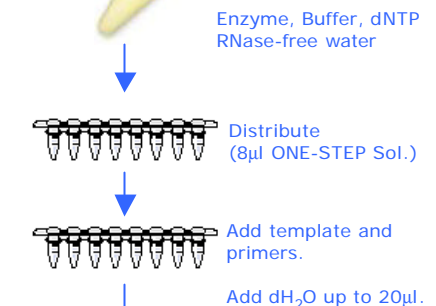
**Fig. RT-PCR with diluted cells**

Total RNA was isolated from 100 to 10,000 HeLa cells using RNA-spin column. 1/10 of each eluate was used for reverse transcription with OptiScript™ RT. 1/2 of each RT reaction was then used in a 35-cycle PCR with iNtRON i-Taq DNA polymerase and primers specific for genes encoding *b-actin*, *Sif*, or *TRF*.

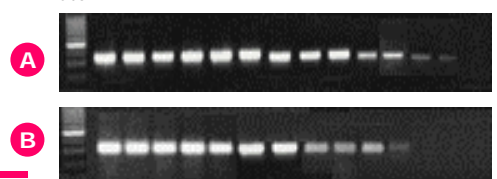
The following reagents are mixed in one tube. (No preparation of master mix)

Enzyme, Buffer, dNTP  
RNase-free water

ONE-STEP Premix (colorless)



Dilute 1 2<sup>1</sup> 2<sup>2</sup> 2<sup>3</sup> 2<sup>4</sup> 2<sup>5</sup> 2<sup>6</sup> 2<sup>7</sup> 2<sup>8</sup> 2<sup>9</sup> 2<sup>10</sup> 2<sup>11</sup> 2<sup>12</sup>



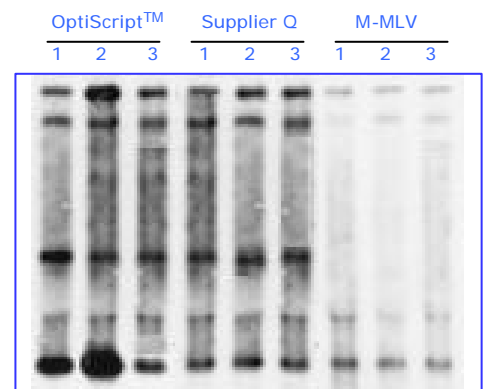
**Fig. Sensitivity and Specificity**

RT-PCR was carried out with foot-and-mouth disease virus infected cell total RNA using iNtRON ONE-STEP RT-PCR Premix Kit or the one-step RT-PCR Kit from Supplier Q.

A: iNtRON's ONE-STEP RT-PCR Premix Kit  
B: Supplier Q RT-PCR Kit

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OptiScript™ RT



**Fig. Effect of incubation temperature**

An autoradiograph is shown of <sup>32</sup>P-labeled cDNA synthesized from a mixture of 200ng each of various RNA size with 4 units (1µl) of each RT at various temperature: 37°C (lane 1); 42 °C (lane 2); and 45 °C (lane 3)