



FIREScript RT cDNA Synthesis KIT

Cat. No.

Lot. No.

Dispense No.

Expiry date

Reagents provided:

- **FIREScript Reverse Transcriptase** (200 U/μl)
- **RiboGrip RNase inhibitor** (40 U/μl)
- **10x RT Reaction Buffer with DTT**
500 mM Tris-HCl pH 8.3, 500 mM KCl, 30 mM MgCl₂, 100 mM DTT
- **dNTP MIX** (20 mM of each)
- **Oligo (dT) Primer** (100 μM)
- **Random Primers** (100 μM)
- **Water, nuclease free**

Description:

FIREScript Reverse Transcriptase (RT) is a genetically engineered MMLV (*Moloney Murine Leukemia Virus*) based Reverse Transcriptase. This is an RNA-directed DNA polymerase that can synthesize a complementary DNA strand from ssRNA or ssDNA and is active over a broad range of reaction temperatures from 37°C-60°C. FIREScript RT is a robust enzyme for RNA detection and has enhanced stability at room temperature with no activity loss for up to 1 month. This RT contains a functional RNase H domain which can increase the sensitivity of RT-qPCR (quantitative reverse transcription PCR).

Unit definition:

One unit is defined as the amount of enzyme that will incorporate 1 nmol of dTTP into acid-precipitable material in 10 minutes at 37°C using poly(rA)•oligo(dT) as template in a total reaction volume of 50 μl.

Shipping and Storage conditions:

Routine storage: -20°C

Shipping and temporary storage for up to 1 month at room temperature has no detrimental effects on the quality of the reagents.

Quality Control:

Assay	Result
First strand cDNA synthesis	passed
ds Endodeoxyribonuclease activity	no
ss Exodeoxyribonuclease activity	no

Safety warnings and precautions:

This product and its components should be handled only by persons trained in laboratory techniques. It is advisable to wear suitable protective clothing, such as laboratory overalls, gloves and safety glasses. Care should be taken to avoid contact with skin or eyes. In case of contact with skin or eyes, wash immediately with water.

Some applications this product is used in may require a license which is not provided by the purchase of this product. Users should obtain the license if required.

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APPROVED BY:
