

SOLIScript® RT cDNA synthesis KIT

Superior specificity with gene-specific primers in flexible kit format

99 /100 18 Citations

Novel *in silico*-engineered, thermostable reverse transcriptase with reduced RNase H activity. SOLIScript® RT is extremely stable and will remain fully active for up to one month at room temperature.



superior specificity with gene-specific primers
 wide reaction temperature 37°C - 60°C
 reaction set-up and shipment without dry ice
 in flexible 6-tube kit format

Ordering

Choose Product Size

50 rxn | 20 µl rxn

200 rxn | 20 µl rxn

50 rxn | 20 µl rxn **free**

sample

REQUEST FOR BULK SIZE

Some applications of this product may require a license which is not provided by the purchase of this product.

For research use only.

Reagents Provided

| Item | Pcs. | Vial size |
|-----------------------------------|------|-----------------|
| SOLIScript® Reverse Transcriptase | 1 | 50 rxn 50 µl |
| RiboGrip™ RNase Inhibitor | 1 | 50 rxn 1000 U |
| 10x RT Reaction Buffer with DTT | 1 | 125 µl |
| dNTP MIX (20 mM of each) | 1 | 2 µmol 25 µl |
| Oligo (dT) Primer | 1 | 50 µl |
| Water, nuclease free | 1 | 1.25 ml |

Description

SOLIScript® Reverse Transcriptase (RT) is an *in-silico* designed chimeric RNA-directed DNA polymerase.

SOLIScript® RT can synthesize a complementary DNA strand from ssRNA or ssDNA and is active at higher temperatures (up to 60°C).

SOLIScript® 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 RNase H domain with reduced activity.

Applications

First strand cDNA synthesis

RT-PCR

RT-qPCR

Properties

Sample type: RNA

Final product: cDNA (first strand)

Product format: Enzyme with all components included reagent kit

Enzyme: SOLIScript® Reverse Transcriptase

Source: Purified from an E. coli strain that carries an overproducing plasmid containing a SOLIScript® Reverse Transcriptase gene.

Storage and dilution buffer: 50% glycerol (v/v), 20 mM Tris-HCl pH 7.5 at 25°C, 100 mM KCl, 0.1 mM EDTA and stabilizers.

Reagents

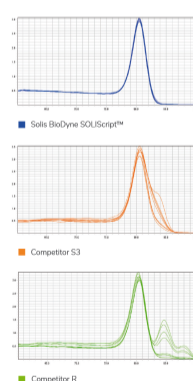
SOLIScript® Reverse Transcriptase

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

Oligo (dT) Primer (100 μM)

dNTP MIX (20 mM of each)

Water, nuclease free



Superior specificity

Reference:

“ SOLIScript is definitely the best RT enzyme in its price category. It is a consistent and processive enzyme. In our experiments, we work with heavily modified RNA species, and yet SOLIScript showed excellent results. ”

KIRILL JEFIMOV
University of Bergen, Norway



cDNA synthesis primer comparison

| | Oligo (dT) primer | Random primers | Chen (5' and 3' terminal) primers | Gene specific primer |
|--|--|---|--|--|
| Recommended final conc. | 1 μM | 0.5 μM | 0.5 μM each | 0.1-1 μM |
| Optimal extension at 50°C for 5' RT min. | - | + | + | - |
| Benefits | Full length cDNA | All RNA in sample is synthesized to cDNA | Reducing 3' bias | All reaction resources used for gene of interest (increased sensitivity) |
| Disadvantages | Prevented 3' bias, Can't bind to 3' UTR lacking poly A tail, Can bind to long polyA sequences in the middle of RNA | Truncated cDNA (multiple potential binding sites per RNA molecule) | Chop off doesn't bind to RNA lacking poly A sequence | Only 1 specific gene of interest per cDNA synthesis run can be analyzed downstream |
| Target RNA | RNA containing poly A tail (all mRNA in cell) | Prokaryotic RNA, eukaryotic (both types mRNA, rRNA, tRNA), Degraded RNA | Combined targets of both primers | Specific gene of interest |

cDNA synthesis priming options

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