

# SOLIScript® 1-step Multiplex Probe Kit

## Product Information

## For sensitive and reliable quantification of RNA targets with probe based qPCR

SOLIScript® 1-step Multiplex Probe Kit has been precisely optimized for performing sensitive and highly specific cDNA synthesis and qPCR in a single tube. The simple workflow of the one-step format and increased stability at room temperature make it ideal for high throughput RNA analysis. Our strict production and quality control procedures ensure consistent performance with every batch.

### Trustworthy results with a wide range of templates and assays:

- SOLIScript® reverse transcriptase is active up to 60°C for exceptional specificity and successful quantification of difficult templates with high GC-content or complex secondary structure
- Excellent quantification in singleplex and up to 4-plex assays
- The solutions have a high concentration which leaves more room for your primers, probes and low concentrated samples
- No detectable change in performance after storage at room temperature for up to 1 month
  - Reduced shipping costs with ambient temperature shipping
  - Convenient reaction set-up without ice

### Product format:

- 40x One-step SOLIScript Mix contains
  - Novel *in silico* designed **SOLIScript® reverse transcriptase** with increased reaction temperature (up to 60°C)
  - *In silico* designed protein-based **ribonuclease inhibitor RiboGrip** for protecting your sample from RNase degradation
- 5x One-step Multiplex Probe Mix contains
  - Hot-start **Taq polymerase HOT FIREPol®** with high sensitivity and specificity
  - Optimized reaction buffer for reverse transcription and qPCR reactions

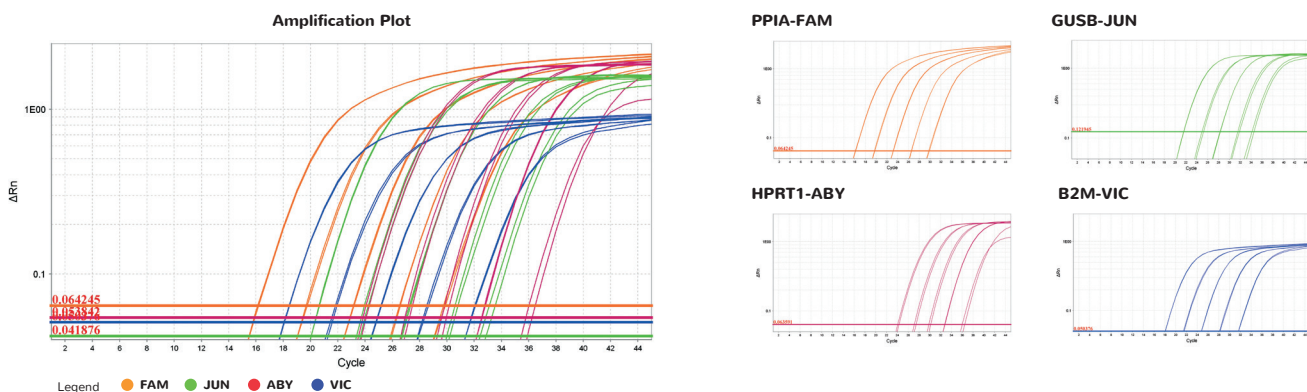
- dUTP to prevent cross-contamination when used with UNG treatment
- Option of different normalization dyes (ROX, Purple) or without dye for compatibility with most qPCR cyclers and fluorescent labels
- Nuclease free water
  - Deionized and ultrafiltrated, without chemical additives

### Choose multiplexing for higher reliability and reduced costs:

- Increase reliability of your results by detecting positive control and target of interest in the same reaction
- Reduce reagent cost and reaction set-up time by detecting multiple targets in a single reaction
- Save your rare samples by acquiring more data from one reaction

We have optimized our reagent composition for excellent performance in highly multiplexed reactions while making sure you don't lose in sensitivity compared to singleplex or duplex assays. Figure 1 shows excellent simultaneous amplification of 4 targets.

**FIGURE 1.** SOLIScript® 1-step Multiplex Probe Kit was used to perform 4-plex one-step RT-qPCR with five tenfold serial dilutions of human total RNA (RNA amount ranges from 4000 pg/µl to 0.4 pg/µl per reaction). Reactions were performed with Applied BioSystems™ QuantStudio™ 6 cycler using Purple dye for normalization.

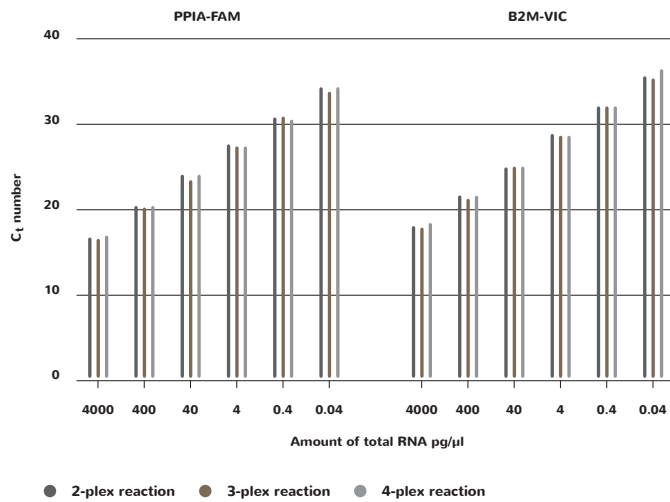


## Same level of sensitivity with multiplexing.

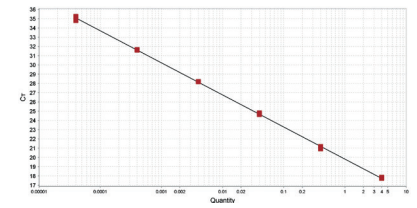
SOLIScript® 1-step Multiplex Probe Kit shows trustworthy quantification whether you want to detect 2 or 4 targets in the same reaction. Figure 2 illustrates that the sensitivity for amplifying PPIA and B2M genes across 6 orders of magnitude is not affected by additional plexes.

**FIGURE 2. SOLIScript® 1-step Multiplex Probe Kit** was used in a 2-plex,

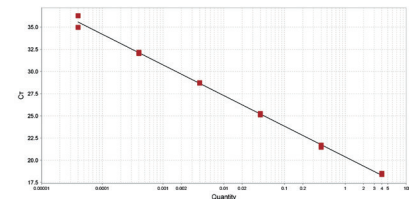
3-plex and 4-plex one-step RT-qPCR reaction (left graph). Graphs on the right show excellent linearity across 6 orders of magnitude for the amplification of PPIA (upper graph) and B2M genes (lower graph) in a 4-plex reaction. Reactions were performed with Applied BioSystems™ QuantStudio™ 6 cyclor. Ct number data shown only for PPIA and B2M genes.



**E=94% / R<sup>2</sup>=1**



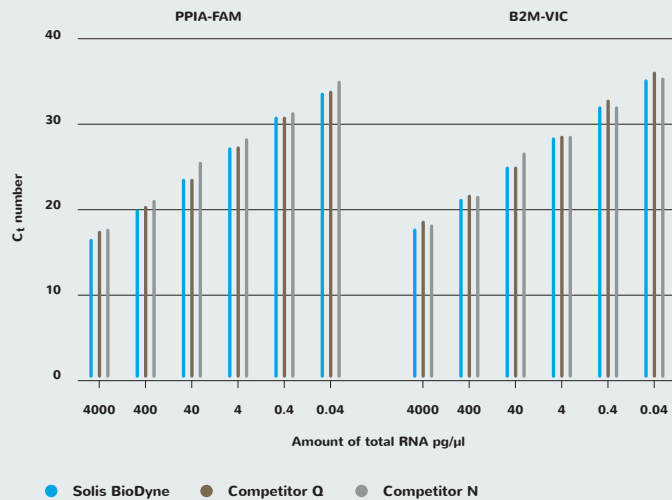
**E=95% / R<sup>2</sup>=1**



## Results on par with major competitors:

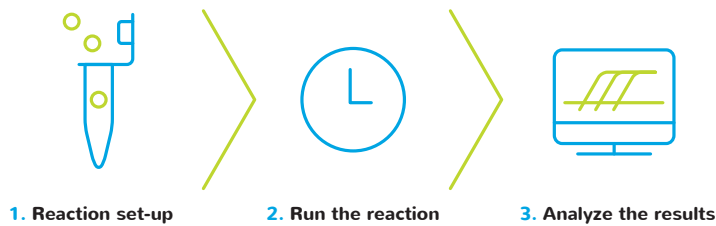
SOLIScript® 1-step Multiplex Probe Kit shows highly competitive results compared to competitors' one-step RT-qPCR kits (Figure 3).

**FIGURE 3.** Probe-based one-step RT-qPCR was performed in duplex reactions with six tenfold dilutions of human total RNA using Solis BioDyne's SOLIScript® 1-step Multiplex Probe Kit or selected competitors following protocols suggested by each supplier.



## Choose one-step format for speed and reliability

### One-step format workflow



### Two-step format workflow

