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# SolisFAST® qPCR range

Fast and highly sensitive qPCR range with **remarkable stability** and **inhibitor tolerance**

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## Features

- **Fast** – delivers results 2-4x faster
- **Accurate** – reproducible quantification of up to 5-plex assays with probe-based mixes
- **Sensitive** – consistent results with low- and high-copy targets
- **Trustworthy** – increased room temperature stability up to 6 months adds security and flexibility

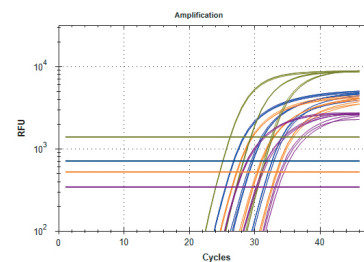
SolisFAST® qPCR range offers ready-to-use probe- and dye-based qPCR mixes for **fast, highly sensitive and reproducible** qPCR assays. Combining our *in silico* designed **inhibitor tolerant SolisFAST® DNA Polymerase** and an optimized buffer, the SolisFAST® qPCR Mixes enable **robust qPCR performance** and accurate target detection in demanding conditions. The product line offers **ice-free shipping** and reaction set-up.

**Exceptional stability** of the SolisFAST® qPCR range enables shipping at ambient temperature

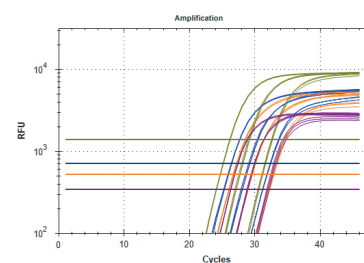
**Table 1.** Stability features of the entire SolisFAST® qPCR range

| Temperature | SolisFAST® Probe qPCR Mix | SolisFAST® Probe qPCR Mix with UNG | SolisFAST® SolisGreen® qPCR Mix |
|-------------|---------------------------|------------------------------------|---------------------------------|
| +37°C       | 2 weeks                   | 2 weeks                            | 2 weeks                         |
| +25°C       | 6 months                  | 3 months                           | 3 months                        |
| +4°C        | 1 year                    | 1 year                             | 1 year                          |
| -20°C       | 2 years                   | 2 years                            | 2 years                         |

**A)** Test Sample of SolisFAST® Probe qPCR Mix: stored for **6 months at +25°C**



**B)** Reference Sample: stored at **-20°C only**



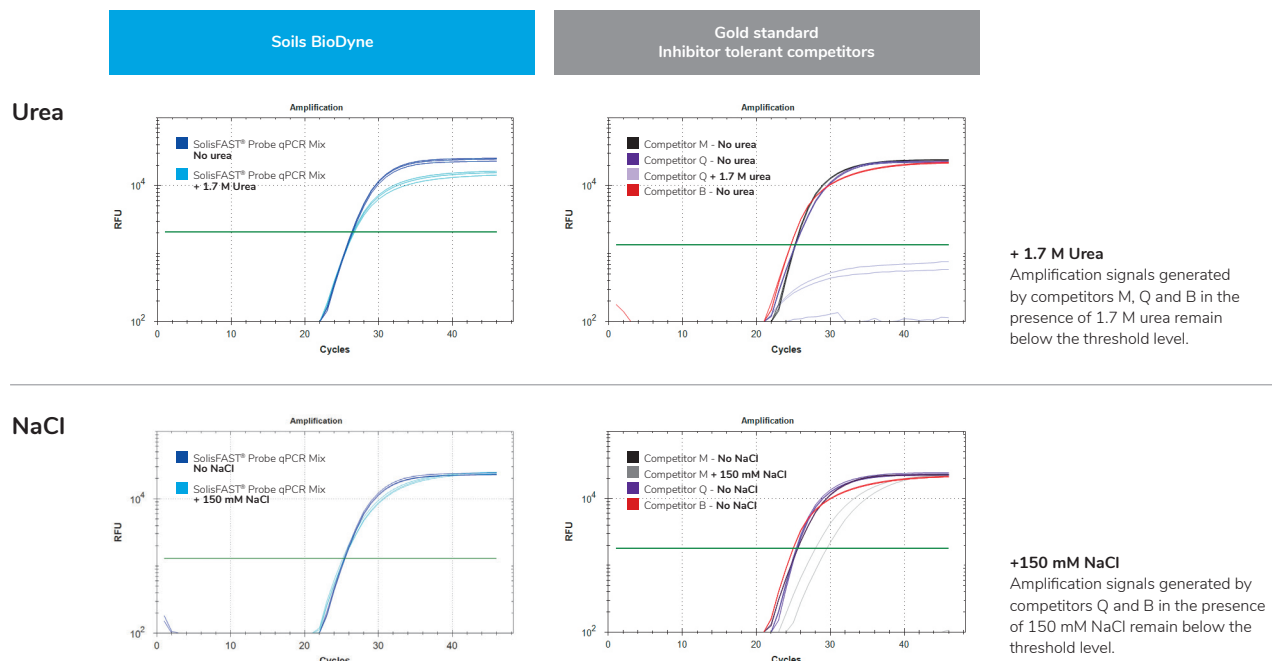
**Figure 1.** A Test Sample of the SolisFAST® Probe qPCR Mix (no ROX) was incubated at +25°C for 6 months. A Reference sample of this product was stored at -20°C only. 4-plex qPCR reactions (FAM, blue; VIC, green; JUN, orange; Cy5, purple) using both the Test sample (A, upper graph) and the Reference sample (B, lower graph) were performed on the Bio-Rad CFX96 platform, using three 10-fold serial dilutions of human gDNA (from 2 ng/μl to 0.02 ng/μl). No significant changes in Cq values and fluorescence levels were detected.

SolisFAST® products have been tested to tolerate common **PCR inhibitors**, allowing **robust performance** from complex samples where PCR inhibition is an issue.

|                                      |                      | Solis BioDyne                      |   | Gold standard Inhibitor tolerant competitors |              |              |
|--------------------------------------|----------------------|------------------------------------|---|--|--------------|--------------|
| Source                               | Inhibitor            | SolisFAST® Probe qPCR Mix (no ROX) | SolisFAST® Probe qPCR Mix (no ROX) With UNG | Competitor Q                                 | Competitor M | Competitor B |
| Urine                                | Urea                 | 1.7 M                              | 1.7 M                                       | 1.2 M  | 1.4 M        | < 1.2 M      |
| Plants                               | Pectin               | 1.6 mg/ml                          | 1 mg/ml                                     | 1 mg/ml                                      | 0.7 mg/ml    | 1 mg/ml      |
| Sample prep.                         | DMSO                 | 11 %                               | 8 %   | 8 %  | 11 %         | 8 %          |
| Sample prep.                         | NaCl                 | 150 mM                             | 130 mM                                      | 110 mM                                       | 140 mM       | < 90 mM      |
| Sample prep.                         | PBS (1x, pH 7.2-7.4) | 30 %                               | 30 %  | 30 %   | 20 %         | 20 %         |
| Sample prep.                         | EtOH                 | 6 %                                | 5 %   | 4 %  | 6 %          | 6 %          |
| Soil                                 | Humic acid           | 1.4 ng/µl                          | 1.4 ng/µl                                   | 1.4 ng/µl                                    | 1.4 ng/µl    | 1.4 ng/µl    |
| Blood                                | Hematin              | 3.9 µM                             | 3.9 µM                                      | 4.1 µM                                       | 4.1 µM       | 3.9 µM       |
| Total reaction time on Bio-Rad CFX96 |                      | 47 min                             |   | 1 h 7 min                                    |              |              |

**Table 2.** To assess the inhibitor tolerance of the SolisFAST® probe-based qPCR mixes, a qPCR test system, targeting a 72 bp region of human gDNA, was developed and the impact of common PCR inhibitors to the reaction was evaluated. Three gold standard inhibitor tolerant competitor products were also assessed in the same panel. Tolerance limits, meaning the inhibitor concentrations at which the Ct value does not increase by more than 1, are displayed in the table. Fast extension rates of the SolisFAST® DNA polymerase enable shorter run times while still showing strong inhibitor tolerance compared to gold standard inhibitor tolerant competitor products.

## Reliable results and top performance even in inhibited reaction conditions



**Figure 2.** Representative amplification plots from inhibitor tolerance studies are presented. The graphs showcase that in the presence of either 1.7 M urea or 150 mM NaCl, only a slight decrease in fluorescence and <1 Cq shift is detected with SolisFAST® Probe qPCR Mix, whereas competitor products show no amplification in the presence of 1.7 M urea and only competitor M was able to generate detectable amplification curves in the presence of 150 mM NaCl.

FL-28-IS-V1



For further details and ordering please contact [info@solisbiodyne.com](mailto:info@solisbiodyne.com) or call +372 740 9960

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