SOLIS BIODYNE OÜ
A: Teaduspargi 9, 50411 Tartu, Estonia
E: info@solisbiodyne.com
T: +372 7409 960

SOLIS BIODYNE

INNOVATION POWERED BY NATURE

SolisAcura™ Probe Genotyping qPCR Mix

Probe-based genotyping master mix based on a novel SolisAcura™ Exo(+) DNA polymerase for various allele-specific applications

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Highly accurate polymerase for mismatch discrimination

Elevated level of detection with both cDNA and gDNA

10-15x higher fidelity compared to regular Taq

The SolisAcura™ Probe Genotyping qPCR Mix is based on a chemically modified SolisAcura™ Exo(+) DNA Polymerase enabling detection with hydrolysis probes on account of the polymerase having 5'→3' exonuclease activity.

High **accuracy** of the SolisAcura™ Probe Genotyping qPCR Mix stems from the ability of the SolisAcura™ polymerase to detect misaligned nucleotides, offering enhanced allelic specificity by selective primer extension. The 10-15x higher fidelity compared to wild-type *Taq* enables more specific incorporation of nucleotides and less non-specific amplification.

Combining the features of high accuracy and inhibitor tolerance, the genotyping mix is ideal for the detection of crude and challenging sample types as well as lower frequency templates such as ctDNA from blood and other cell-free sample types.

Features

- Detection of **SNP in any loci** either in coding or non-coding regions, as well as **GC-rich template** amplification
- **Remarkable level of detection** from 0.01 to 100 ng
- Clustering-based genotyping on either **endpoint or qPCR cycler**
- **Increased fidelity** of 10-15x compared to wild-type *Taq*
- **Up to 4-plex** multiplexing capability
- Wide range of **reaction volumes** from 5 to 20 µl
- Manufactured in compliance with ISO 13485

Well-defined clustering

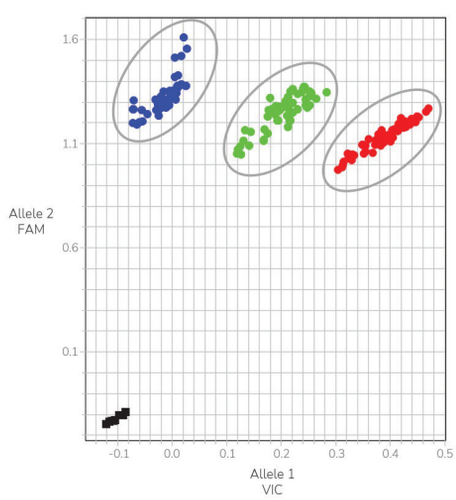

Figure 1. Clustering-based SNP genotyping was performed with **SolisAcura™ Probe Genotyping qPCR Mix** for the in-house SNP detection assay using synthetical double-stranded DNA fragments of 260 bp with concentration of 2500 cp/rxn that were spiked with maize gDNA. Blue dots correspond to homozygous for allele 2, green dots for heterozygous for allele 1/allele 2 and red dots for homozygous for allele 1. Cycling protocol used was 60°C 30 sec (pre-read), 95°C 5 min, 40 cycles of: 95°C 10 sec and 60°C 30 sec, and 60°C 30 sec (post-read).

Cassette-based mix without exonuclease activity also available!

Wide dynamic range – great performance with both high-quality and suboptimal DNA samples

The SolisAcura™ Probe Genotyping qPCR Mix has an exceptional level of detection from 0.01 to 100 ng. Additionally, the fluorescence of the targets at different concentrations reaches the same level, which is essential in cluster formation.

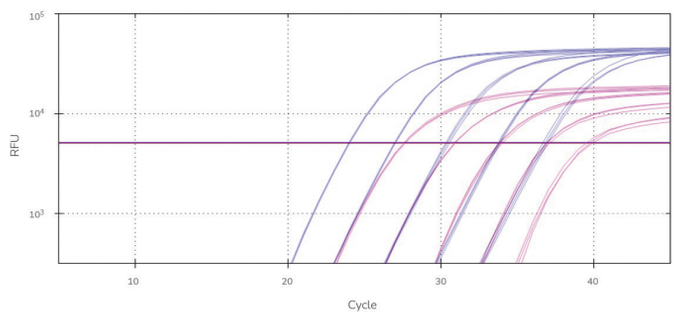

Figure 2. Human total gDNA was amplified over five 10-fold dilution series from 100 ng to 10 pg to detect gene CLTCL1 (FAM_BHQ1) with pink amplification curves and gene ALB (VIC_MGB) with blue amplification curves. Cycling protocol used with **SolisAcura™ Probe Genotyping qPCR Mix** was 95°C 3 min, 40 cycles of: 95°C 10 sec and 60°C 30 sec.

Applications

- SNP genotyping
- CNV analysis
- Low amount template amplification
- Pharmacogenetics, rare disease detection, oncology
- High-throughput screening
- Workflows using crude and inhibitor-rich samples

Higher DNA yield than with competitor's mix

Higher yield = higher fluorescence

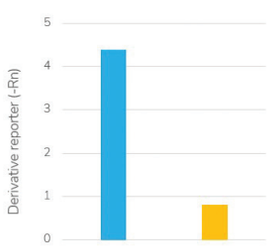

Figure 3. Melt curve analysis was performed for the SNP detection assay using synthetic double-stranded DNA fragments spiked with sprout gDNA and EvaGreen® dye. Cycling protocol used with **SolisAcura™ Probe Genotyping qPCR Mix** was 95°C 3 min, 40 cycles of: 95°C 10 sec and 60°C 30 sec. The cycling protocol used with the competitor's genotyping mix was the same as suggested in their technical manual. Both mixes were tested on QuantStudio™ 6 Flex (Applied Biosystems™) thermal cycler.

SolisAcura™ Probe Genotyping qPCR Mix
Competitor T genotyping mix

Ordering information

Bulk solutions available!

Product	CAT. NO.	Size	Read more
SolisAcura™ Probe Genotyping qPCR Mix (no ROX)	38-01-0000S (sample) 38-01-00250 38-01-00250-5 38-01-05000	50 rxn (sample) 250 rxn 5 × 250 rn 5000 rxn	
SolisAcura™ Probe Genotyping qPCR Mix (ROX)	38-02-0000S (sample) 38-02-00250 38-02-00250-5 38-02-05000	50 rxn (sample) 250 rxn 5 × 250 rn 5000 rxn	
SolisAcura™ Probe Genotyping qPCR Mix (Purple)	38-03-0000S (sample) 38-03-00250 38-03-00250-5 38-03-05000	50 rxn (sample) 250 rxn 5 × 250 rn 5000 rxn	

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For further details and ordering please contact
orders@solisbiodyne.com

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