SOLIS BIODYNE

INNOVATION POWERED **BY NATURE**

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HOT SolisAcura™ Cassette-Based Genotyping Mix

Accurate, inhibitor tolerant and high-specificity cassette-based genotyping mix for various allele-specific applications.

Superior mismatch discrimination at the 3' end of primers

Universal **cassette-based** reporter system included

Outstanding performance with **crude samples**

HOT SolisAcura™ Cassette-Based Genotyping Mix (ROX) is based on a genetically engineered HOT SolisAcura™ Exo(-) DNA Polymerase, which is designed for superior SNP detection and allele discrimination through cassette-based assays.

The polymerase enables recognition of misaligned nucleotides at the 3' end of primers, resulting in highly specific extension and improved allelic discrimination. With the 10–15× higher fidelity than wild-type *Taq* polymerase, the enzyme ensures more accurate nucleotide incorporation and reduced non-specific amplification.

The **HOT SolisAcura™ Cassette-Based Genotyping Mix (ROX)** is ideally suited for SNP detection via allele-specific PCR using a universal reverse primer and two allele-specific forward primers that compete for binding, each linked to a unique tail sequence corresponding to universal FRET (Fluorescence Resonance Energy Transfer) cassettes. This master mix is also compatible with KASP™, PACE® and Amplifluor® marker assays.

Applications

- SNP detection and genotyping
- Agricultural and livestock genomics
- High-throughput screening
- Workflows using crude and inhibitor-rich samples

Accurate genotype calls and well-defined clustering

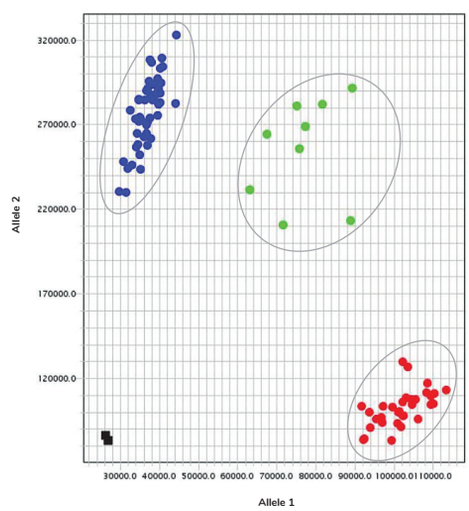

Figure 1. Allelic discrimination plot for the in-house SNP detection assay using maize gDNA. Formed clusters are distinct with accurate genotype calls. Blue dots correspond to homozygous sample for allele 2, green dots for heterozygous sample for allele 1/ allele 2 and red dots for homozygous sample for allele 1.

Discover standalone HOT SolisAcura™ Exo(-) option

Inhibitor tolerant – outstanding performance with undiluted crude plant samples

Engineered for enhanced synthesis rates and inherent inhibitor tolerance, the mix delivers robust performance even with crude or challenging sample types. The incorporated chemical hot-start mechanism further increases specificity and accuracy by preventing mispriming and non-specific primer extension.

Features

- **Increased fidelity** of 10-15X compared to wild-type *Taq*
- Universal **cassette-based** reporter system
- **Accurate genotype call** with high rate of confidence
- Detection of **SNP in any loci** either in coding or non-coding regions, as well as **GC-rich template** amplification
- Robust amplification with **crude samples**
- Clustering-based genotyping on either **endpoint or qPCR cycler**
- Manufactured in compliance with ISO 13485

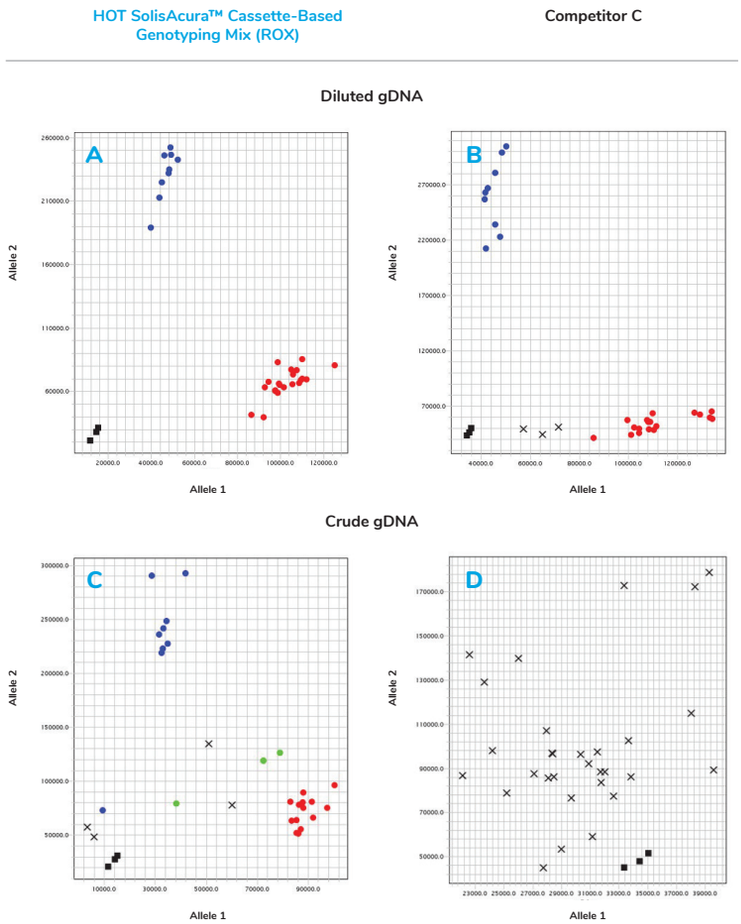

Figure 2. Allelic discrimination experiment was performed with crude (undiluted) maize gDNA and 1/20 diluted maize gDNA using HOT SolisAcura™ Cassette-based Genotyping Mix (ROX) and competitor master mix. HOT SolisAcura™ Cassette-based Genotyping Mix produces **well-defined clusters** for different alleles (A), whereas with competitor's master mix the clusters are more spread out (B). Using **undiluted gDNA** with HOT SolisAcura™ Cassette-based Genotyping Mix produces clusters with some undetermined samples (C), whereas using crude gDNA with competitor's master mix forms no clear clusters (D).

Ordering information

Bulk solutions available!

Product	CAT. NO.	Size	Read more
HOT SolisAcura™ Cassette-Based Genotyping Mix (ROX)	38-12-0000S (sample) 38-12-00200 38-12-00200-5 38-12-05000	50 rxn (sample) 200 rxn 5 × 200 rn 5000 rxn	

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

Request a FREE SAMPLE!