SNP Genotyping: The KASP Assay

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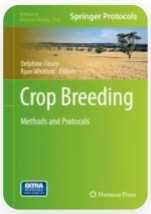

Crop Breeding

Chunlin He, John Holme & Jeffrey Anthony

Part of the book series: Methods in Molecular Biology ((MIMB,volume 1145))

Abstract

The KASP genotyping assay utilizes a unique form of competitive allele-specific PCR combined with a novel, homogeneous, fluorescence-based reporting system for the identification and measurement of genetic variation occurring at the nucleotide level to detect single nucleotide polymorphisms (SNPs) or inserts and deletions (InDels). The KASP technology is suitable for use on a variety of equipment platforms and provides flexibility in terms of the number of SNPs and the number of samples able to be analyzed. The KASP

chemistry functions equally well in 96-, 384-, and 1,536-well microtiter plate formats and has been utilized over many years in large and small laboratories by users across the fields of human, animal, and plant genetics.

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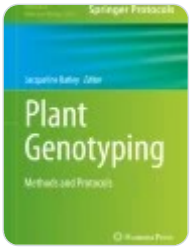

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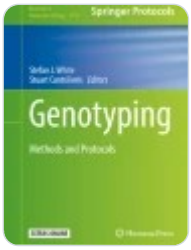

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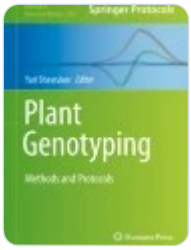

PCR Allele Competitive Extension (PACE)

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