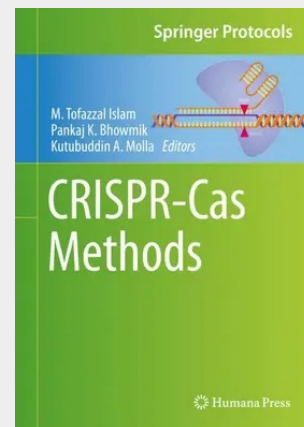


CRISPR-Cas Methods

This volume details the fundamentals of the *CRISPR-Cas system*, and its protocols illustrate advances in *CRISPR-Cas* techniques for efficient genome editing. Introductory chapters provide a wide horizon of *CRISPR/Cas-based methods* and applications. Additional chapters guide readers through HDR-mediated editing, sgRNA design, the step-by-step procedure of multiplex adenine base editing experiments in rice, generating mutants for rice, wheat, Brachypodium, Barley, Flax, and Phytophthora, visual screening of mutants, gene deletion (knock-out), tagging (knock-in) in mammalian cells, the cloning-free (DNA-free) technique, cell-penetrating peptides, generating a genome-edited banana, and nuclear genome editing of Chlamydomonas employing CRISPR-Cpf1 combined with a single-stranded DNA (ssODN) repair template. Authoritative and cutting-edge, *CRISPR-Cas Methods* aims to assist researchers who are new to the field and are aiming to learn how best to adopt this technology for a particular organism.

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