NUCLEOBASE EDITORS COMPRISING NUCLEIC ACID PROGRAMMABLE DNA BINDING PROTEINS

ABSTRACT

Some aspects of this disclosure provide strategies, systems, reagents, methods, and kits that are useful for the targeted editing of nucleic acids, including editing a single site within the genome of a cell or subject, e. g., within the human genome. In some embodiments, fusion proteins of nucleic acid programmable DNA binding proteins (napDNAbp), e. g., Cpf 1 or variants thereof, and nucleic acid editing proteins or protein domains, e. g., deaminase domains, are provided. In some embodiments, methods for targeted nucleic acid editing are provided. In some embodiments, reagents and kits for the generation of targeted nucleic acid editing proteins, e. g., fusion proteins of a napDNAbp (e. g., CasX, CasY, Cpfl, C2cl, C2c2, C2C3, and Argonaute) and nucleic acid editing proteins or domains, are provided.

Fig. 152