

ABSTRACT

MODIFIED Cas9 PROTEIN AND USE THEREOF

5 A protein having a binding ability to guide RNA and
consisting of a sequence containing an amino acid sequence
wherein a continuous deletion region is present between the
481-position and the 649-position in the amino acid sequence
shown in SEQ ID NO: 2, the deletion region containing
10 (i) all or a part of L1 domain (481- to 519-positions), and
(ii) entire HNH domain (520- to 628-positions), and further
optionally containing
(iii) all or a part of L2 domain (629- to 649-positions),
wherein amino acids adjacent to each of the deletion region are
15 linked by a linker consisting of 3 to 10 amino acid residues
functions as a miniaturized dSaCas9 protein while maintaining
DNA binding affinity. Use of the miniaturized dSaCas9 protein
makes it possible to mount many genes into vectors.

20 Fig. 1