[CLAIMS]

[Claim 1]

An artificial nucleic acid-cleaving enzyme comprising:

a nuclease domain which is a polypeptide containing an amino acid sequence set forth at positions 391 to 585 of SEQ ID NO: 1 or positions 389 to 579 of SEQ ID NO: 3, or a mutant polypeptide thereof; and

a nucleic acid-binding domain,

wherein the mutant polypeptide is a polypeptide containing an amino acid sequence having at least 90% sequence identity with the amino acid sequence set forth at positions 391 to 585 of SEQ ID NO: 1 or positions 389 to 579 of SEQ ID NO: 3 and having nuclease activity, and

wherein the nucleic acid-binding domain contains a zinc finger, TALE, CRISPR/Cas, or PPR.

[Claim 2]

The artificial nucleic acid-cleaving enzyme according to claim 1, further comprising: a linker located between the nuclease domain and the nucleic acid-binding domain.

[Claim 3]

An isolated nucleic acid comprising: a nucleic acid sequence encoding the artificial nucleic acid-cleaving enzyme according to any one of claims 1 or 2.

[Claim 4]

A vector comprising: the nucleic acid according to claim 3, or a transcription product or translation product thereof.

[Claim 5]

A method for modifying a target nucleic acid, comprising: introducing into a cell(except for a cell present in a human body, a human germ cell and a human embryonic cell), the artificial nucleic acid-cleaving enzyme according to any one of claims 1 or 2, the nucleic acid according to claim 3, or the vector according to claim 4.

[Claim 6]

The method according to claim 5, wherein the artificial nucleic acid-cleaving enzyme, nucleic acid, or vector is two or more kinds of artificial nucleic acid-cleaving enzymes, a nucleic acid encoding the two or more kinds of artificial nucleic acid-cleaving enzymes, or a vector containing the nucleic acid, a transcription product thereof, or a translation product thereof.

[Claim 7]

A kit for modifying a target nucleic acid, comprising: the artificial nucleic acid-cleaving enzyme according to any one of claims 1 or 2, the nucleic acid according to claim 3, or the vector according to claim

4.

[Claim 8]

The kit according to claim 7, wherein the artificial nucleic acid-cleaving enzyme, nucleic acid, or vector is two or more kinds of artificial nucleic acid-cleaving enzymes, a nucleic acid encoding the two or more kinds of artificial nucleic acid-cleaving enzymes, or a vector containing the nucleic acid, a transcription product thereof, or a translation product thereof.