

CRISPR-CAS13 SYSTEM AND USE THEREOF

Abstract

The present invention relates to a CRISPR-Cas13 system and use thereof, and
5 also relates to a Cas13 protein, a fusion protein, and a guide polynucleotide. The
Cas13 protein has at least 90% sequence identity compared to SEQ ID NO: 1. The
fusion protein comprises the Cas13 protein fused to a protein domain and/or a
polypeptide tag. The guide polynucleotide comprises a same-direction repetition
sequence and a guide sequence that has been engineered to hybridize with the
10 target RNA. The same-direction repetition sequence has at least 70% sequence
identity to any of SEQ ID NOs: 3 and 80-87. The CRISPR-Cas13 system
comprises the Cas13 protein that has at least 90% sequence identity to SEQ ID
NO: 1, or a coding nucleic acid therefor, and the guide polynucleotide or a coding
nucleic acid therefor.

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(Figure 1)