ABSTRACT

METHOD FOR THE GENERATION OF COMPACT TALE-NUCLEASES AND USES THEREOF

The present invention relates to a method for the generation of compact Transcription Activator-Like Effector Nucleases (TALENs) that can efficiently target and process double-stranded DNA. More specifically, the present invention concerns a method for the creation of TALENs that consist of a single TALE DNA binding domain fused to at least one catalytic domain such that the active entity is composed of a single polypeptide chain for simple and efficient vectorization and does not require dimerization to target a specific single double-stranded DNA target sequence of interest and process DNA nearby said DNA target sequence. The present invention also relates to compact TALENs, vectors, compositions and kits used to implement the method.

FIG. 1