



**Figure S3.** Sequence of miniCR-AA12345 with length of each sequence part indicated. D-leader (white) and D-repeats (black) are of the same sequence as in CRISPR locus D of *S. solfataricus* P2 and have a length of 497 bp and 24 bp, respectively. D1 and D5 spacers (grey) are also taken over from the host CRISPR-locus D and are of 37 bp and 39 bp, respectively. The artificial  $\alpha$ -amylase targeting spacers (colored, AA1-AA5) are of 37 bp each. Map was designed using SnapGene Viewer software (from GSL Biotech; available at [snapgene.com](http://snapgene.com)).