Supplementary Methods

NMR spectroscopy

NMR measurements were carried out on a Bruker 700 MHz Avance III spectrometer. All measurements were performed at 298 K. 1D ^{1}H-spectra were acquired with 256 scans and processed using the program TopSpin Version 3.2.
For NMR experiments the samples were prepared by dissolving the peptides in 95% H_2O/5% D_2O with DSS reference, the pH was adjusted to 7.0 in buffer containing 25 mM NaH_2PO_4 and Na_2HPO_4. For NMR measurements, the concentration of the RreB and RreR peptides was 0.2 mM and 2 mM, respectively.

CD spectroscopy

All measurements were carried out with a Jasco J-810 CD spectropolarimeter in a cuvette with a path length of 10mm. The scanning speed was 50 nm/min, bandwidth 1 nm, and a response time of 1 s. Every spectrum was baseline corrected with the corresponding buffer mixture.

In each experiment, measurements were done at 20 °C and 3 spectra were summed and averaged. Peptide samples had a concentration of 200 µM in different buffers (Table 1). All spectra were later smoothened and plotted using Origin (version 8).

Buffers, which were used for CD spectroscopy (NaPi, NaH_2PO4 and Na_2HPO4):

rreB

Buffer	pH
25mM NaPi	7
25mM NaPi	8,5
25mM Tris	7
25mM Tris	8
25mM Tris	9
25mM BisTris	9,5

rreR

Buffer	pH
25mM NaPi	7
25mM NaPi	8,5
25mM Tris	9
25mM BisTris	9,5