Supplementary Figures



Supplementary Figure 1. Interdigitating aliphatic residues in the hydrophobic cores between helices H1/H3 (a) and helices H2/H3 (b). Subscripts refer to the repeat number and superscripts to the position of the amino acid in the armadillo repeat.



Supplementary Figure 2. Superposition of YM₅A (orange) and His-YM₅A/Ca²⁺ (blue). The subunits of His-YM₅A/Ca²⁺ are shown as a blue cartoon and in surface representation. The counter-clockwise rotation of the N-terminal repeats of His-YM₅A/Ca²⁺ relative to YM₅A is sketched.



a.



b.

Supplementary Figure 3. (a) Superposition of the sequestered cap domain (N-cap and C-cap in green and orange, respectively) on His-YM₅A/Ca²⁺ based on its N-terminal two repeats (cyan C α trace). Close-up view showing the side chains of Ala³⁴, Thr³⁴, and Leu³⁵. (b) Superposition of M₅:A and Y[†]:M₁[†] fragments from domain-swapped YM₅A/Ca²⁺ (Y-, M-, and A-type repeats are shown with green, magenta, and orange carbon atoms, respectively) on its own M₃:M₄ loop fragment (cyan carbon atoms). H-bonds of helices are shown as yellow dotted lines.

Supplementary Tables

Supplementary Table 1. Oligonucleotides used for the assembly and cloning of dArmRP genes.

name	sequence 5'-3'	description (for=forward, rev=reverse)
M4_34T_36 G_rev	CCGGGGTACCCTAAGGTCTCAACCACCAGAAG CGATGTTACCCAGGGTCCACAGAGCTTCTTGC	rev assembly of M" module
pQE30_for	CGGATAACAATTTCACACAG	for assembly of modules
pQE30_rev	GTTCTGAGGTCATTACTG	rev assembly of modules
pQE30_short _Bam_f	ATCGCATCACCATCACCATCACG	for assembly of modules short
pQE30_short _Kpnl_r	TAAGCTTGGCTGCAGGTCGACC	rev assembly of modules short