Supporting Information

Synthetic approaches to nucleopeptides containing all the four nucleobases and nucleic acid-binding studies on a mixed-sequence nucleo-oligolysine

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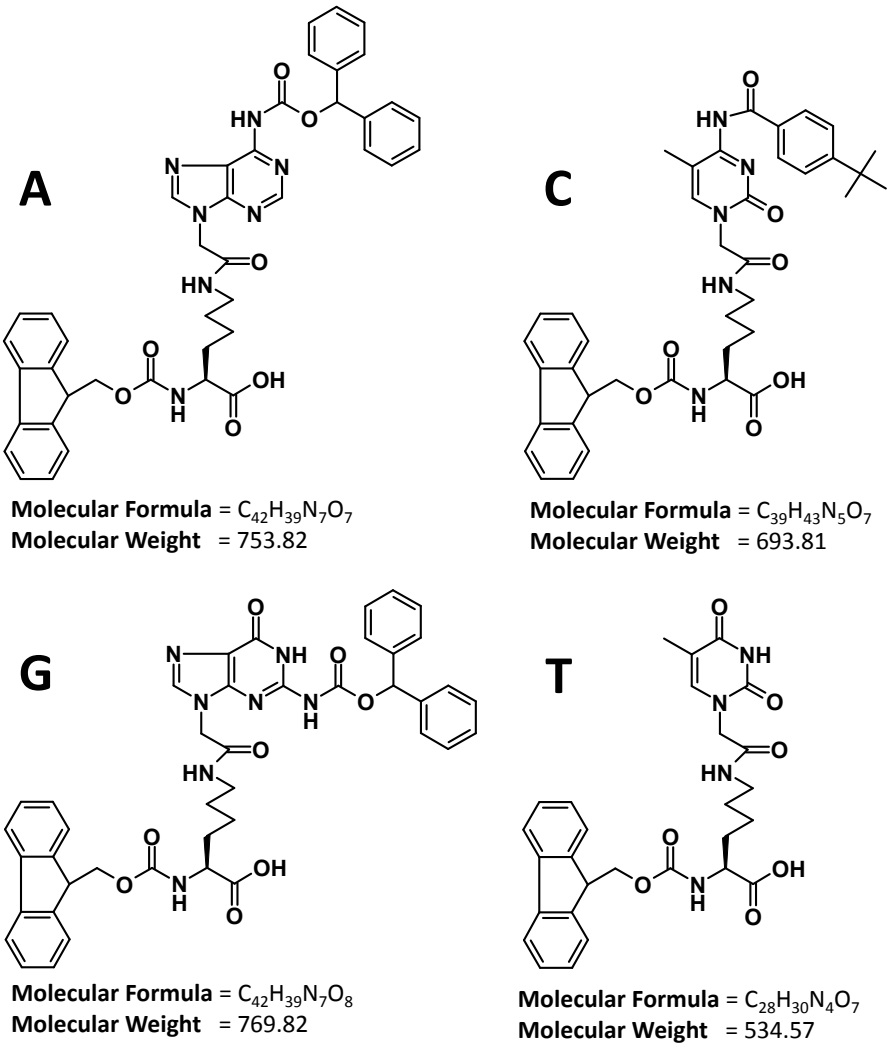


Figure S1: Structures of the protected nucleolysine monomers and calculated molecular weights

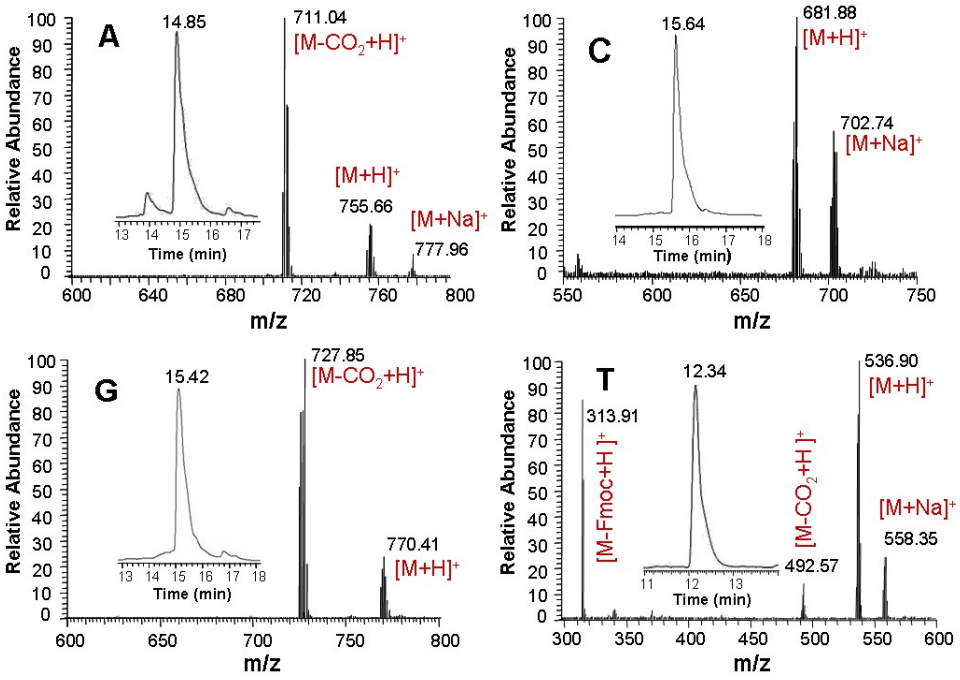
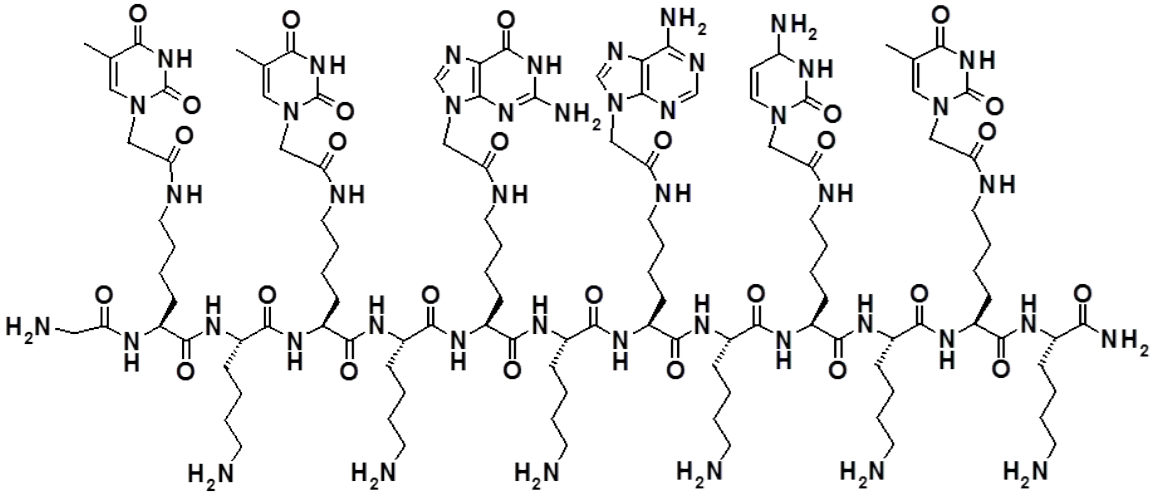
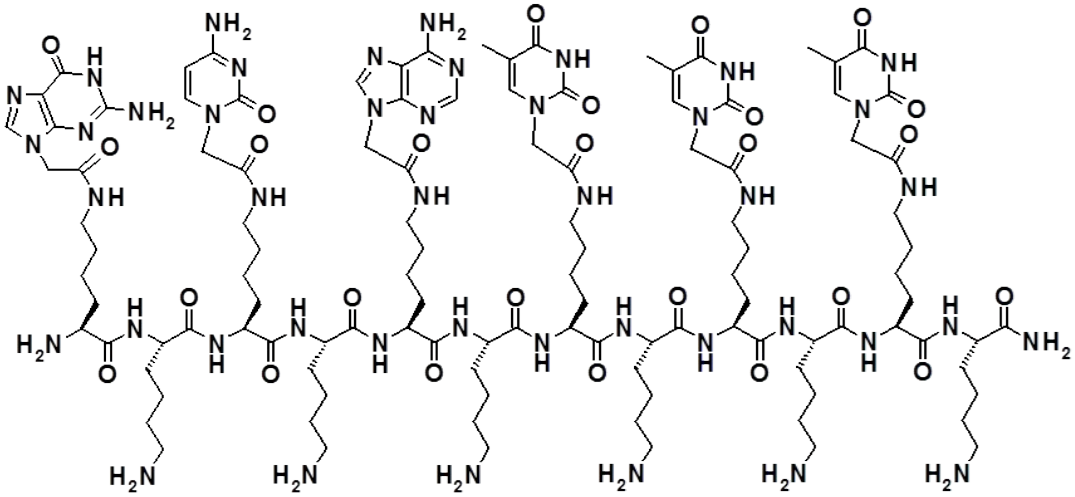


Fig. S2: LC-ESIMS (positive ions) of the four the nucleolysine monomers (RP C18 column, HPLC method: 15 to 70 % of B in A over10 minutes)



H_2N-Gly-***TKTKGKAKCKTK***-$CONH_2$: **1**



H_2N-***GKCKAKTKTKTK***-$CONH_2$: **2**

Fig. S3: Structural representation of the nucleopeptides **1** and **2** object of this work.

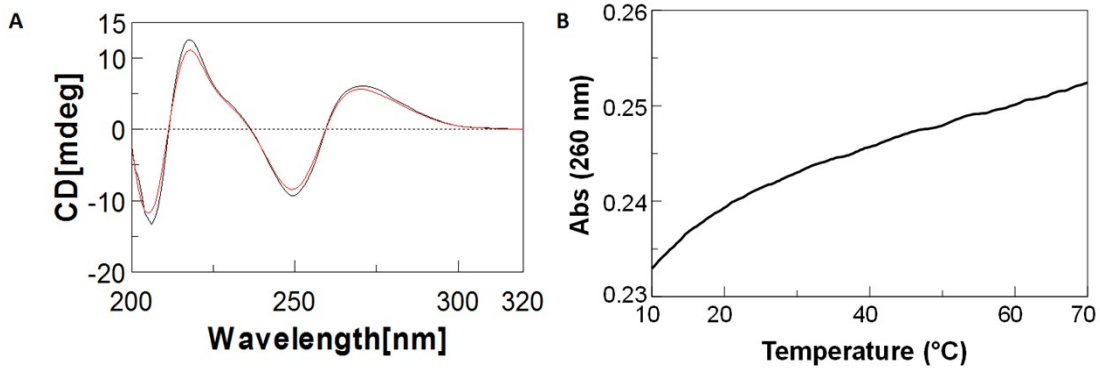


Fig. S4: (**A**) CD profiles relative to **2** and complementary DNA solutions before (black line) and after (red) mixing, both at a 10 μM concentration in 10 mM phosphate buffer, pH 7.5, at 5 °C (total volume after mixing= 2 mL). (**B**) UV thermal denaturation curve relative to the above-described nucleopeptide **2**/DNA complex.

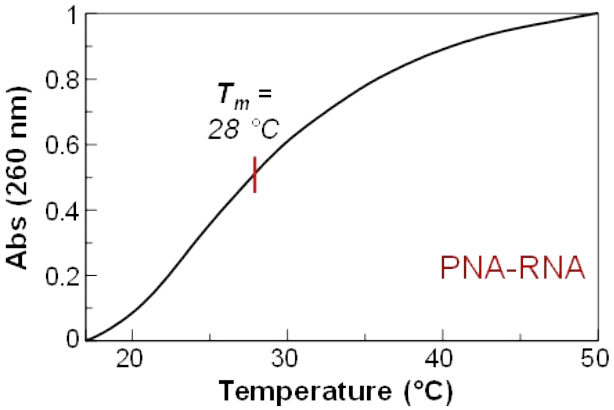


Fig. S5: UV thermal denaturation curve relative to PNA (NH_2-gcattt-$CONH_2$)/RNA complex (6.7 / 1.5 μM respectively, in 10 mM phosphate buffer-pH 7.5; V=3mL).

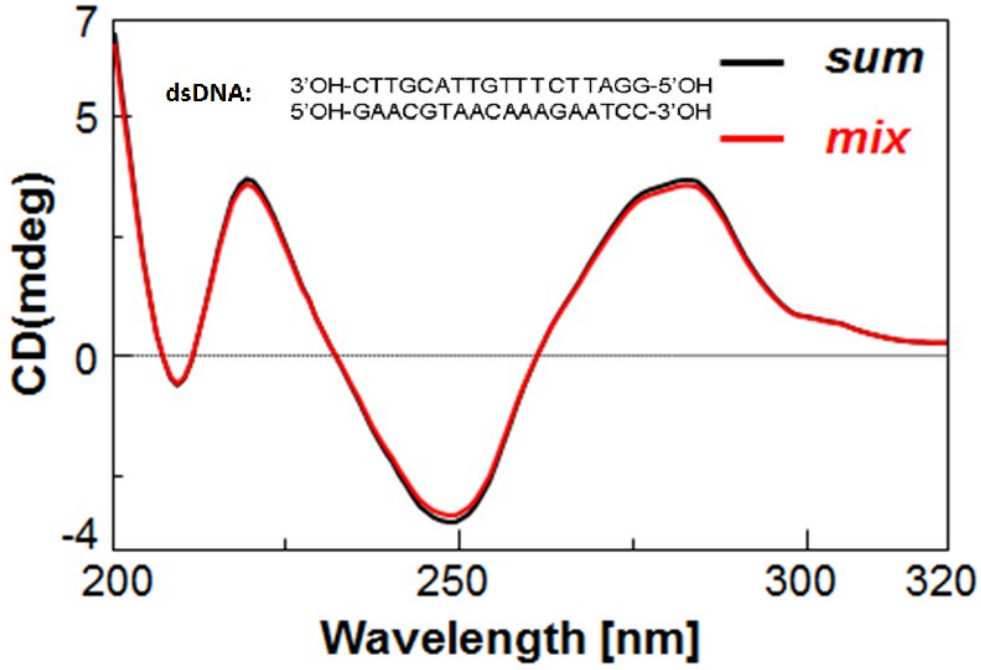


Fig. S6: CD profiles relative to **2** (C=4 μM) and double stranded DNA (C=2 μM) solutions before (black line) and after (red) mixing, in 10 mM phosphate buffer, pH 7.5, at 5 °C (total volume after mixing= 2 mL).