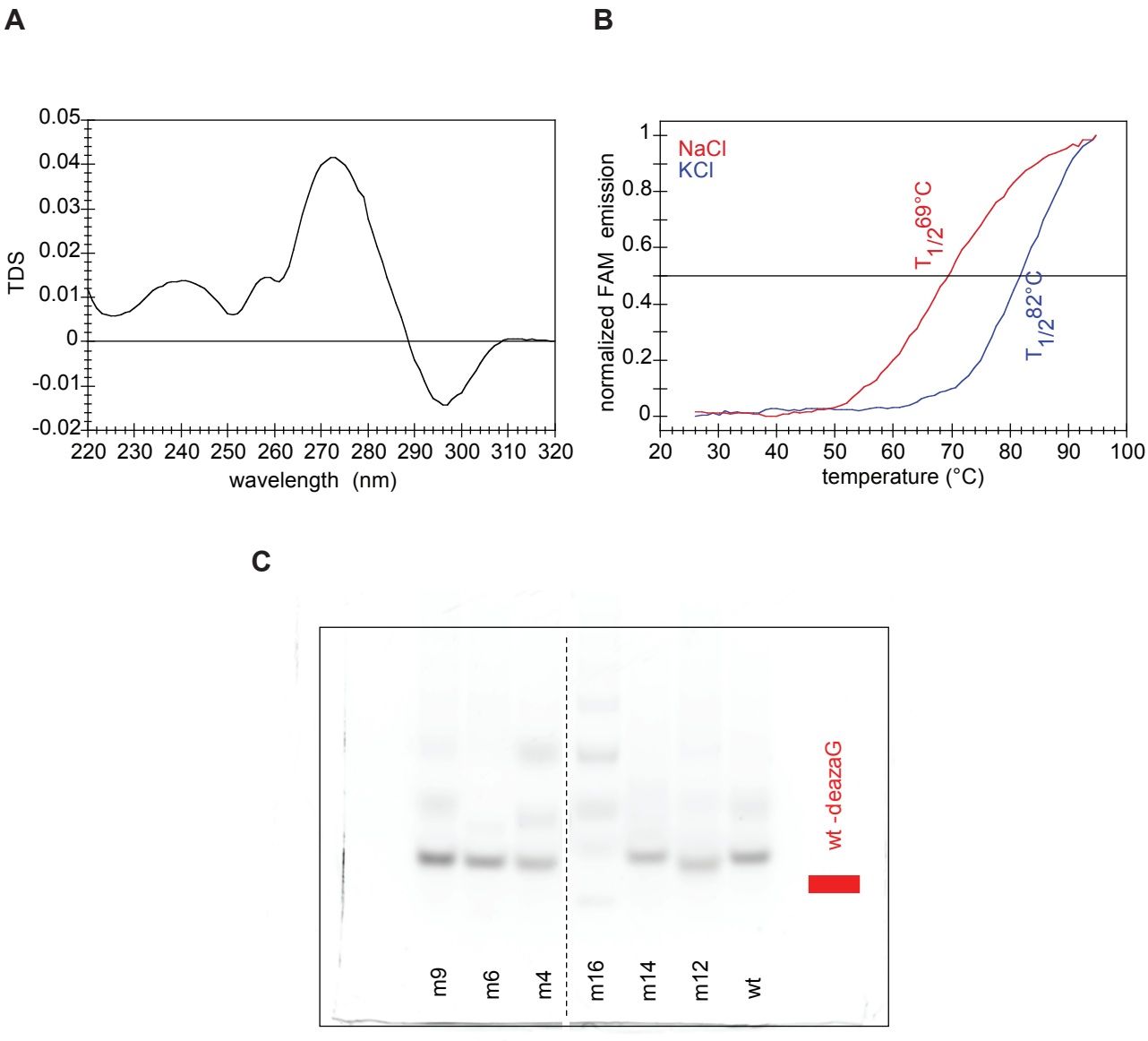

Supplementary Figure S3 - G4#1 and its mutants fold into polymorphic G4 structures

We characterized the structures formed by the 17mer sequence dG13CG3 (wt) and its mutants (m4, m6, m9, m12, m14 and m16), by different methods. Two features demonstrated the formation of G4 by all the sequences. **(A)** For all the 17mers, the shape of the thermal difference spectrum (TDS), defined as the difference between the absorption spectra obtained at high (unfolded state) and low (folded state) temperatures, was characteristic of G4 structures. For example, the TDS of the mutant m12 (20 μM) in KCl (10 mM) is shown. **(B)** For all the 17mers, the formed structures were more stable in KCl than in NaCl; this is also a characteristic feature of G4 structures. The melting profiles of the double-dye-labeled wt protein (0.2 μM) in NaCl and KCl (10 mM) are shown. **(C)** All the oligonucleotides folded into polymorphic structures (probably both intra- and intermolecular G4), as revealed by the presence of bands of different mobilities in PAGE experiments. The migration patterns of the double-dye-labeled 17mers (20 μM) in KCl (10 mM) are presented as an example. The bands were detected by fluorescence; the wt-deazaG, which did not fold into G4, was detected by UV-shadow and its position is indicated in red.