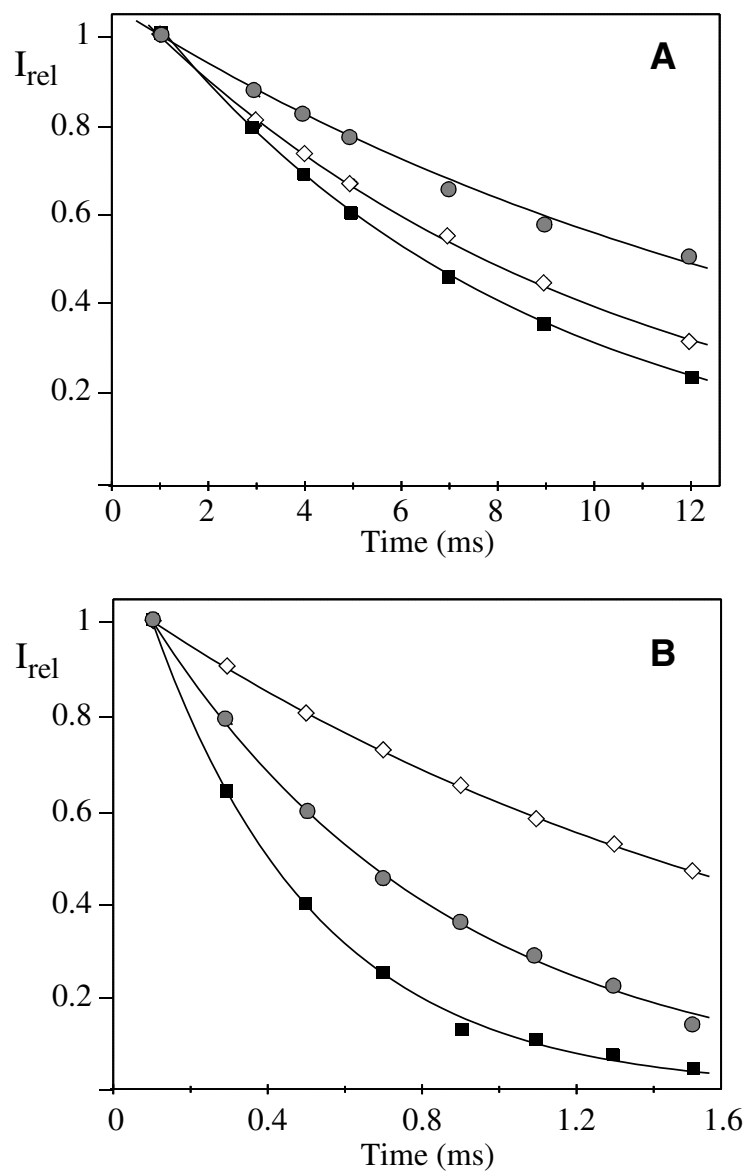


Supporting information (1 page):



**Fig. S1.** Decay curves with monoexponential fitting for (A) two-spin order,  $D_z N_z$ , and (B) antiphase coherence,  $D_x N_z$ , which yielded the relaxation rates  $R(D_z N_z)$  and  $R(D_x N_z)$  shown in Fig. 3. Data for  $^2\text{H}$  in the Z position of the  $^1\text{H}(\text{E})-^{15}\text{N}-^2\text{H}(\text{Z})$  spin systems of the residues Gln6 (◇), Gln12 (■) and Asn51 (●) of the *ftz* homeodomain are shown, where the first data point of each individual curve was scaled to a value of 1.0.