## Supplementary Table S1. Structure Statistics OF THE ENERGY-MINIMIZED FAMILY OF CONFORMERS of $\Delta 76~Tb$ 1-C-Grx1

Total	1909
	553
Intraresidue (i = j)	
Sequential $( i-j =1)$	499
Medium range $(1 <  i-j  \le 5)$	325
Long range $( i-j  > 5)$	532
TALOS-derived dihedral restraints	191
Residual NOE violations <sup>a</sup>	
Number ≥0.2 Å	$1.2 \pm 1.0$
Maximum (Å)	$0.22 \pm 0.20$
Deviation from idealized geometry <sup>a</sup>	
Bond lengths (Å)	0.014
Bond angles (°)	1.9
Ensemble rmsd <sup>b</sup> (Å)	
Backbone (78–182)	$0.54 \pm 0.12$
All heavy atoms	$1.07 \pm 0.09$
Ramachandran plot statistics (%) <sup>c</sup>	
Most favored regions	90.7
Additionally allowed regions	8.8
Generously allowed regions	0.4
Disallowed regions	0.2

<sup>&</sup>lt;sup>a</sup>The average values for the 20 energy-minimized structures with the lowest CYANA-target function values and the standard deviation among them are reported.

<sup>b</sup>rmsd values were calculated with MOLMOL.

<sup>c</sup>Determined by Procheck.