## Protein-Protein HADDocking using exclusively Pseudocontact Shifts

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SI Fig. 1  $\epsilon$ 186/HOT interface RMSD (i-RMSD) for the intermediate and final results of the bound-bound HADDOCK calculation. The level of noise used for the synthetic data was  $\pm$  0.45 ppm. In Figure 1 the level of noise used was  $\pm$  0.15 ppm.



**SI Fig. 2** Conformational changes of  $\varepsilon 186$  localized at the loop 157K-162G. In pink the structure of bound  $\varepsilon 186$  (2IDO chain C). In green the superimposed crystal structure of free  $\varepsilon 186$  (1J53). In blue the surface of HOT (2IDO chain D). The loop 157K-126G undergoes a large conformational change of up to 11.5 Å.



**SI Fig. 3** Conformational changes of HOT. In blue, ribbon representation of bound HOT (2IDO, chain D). In orange, ribbon representation of free HOT (2AXD). In pink, the surface of bound  $\epsilon$ 186 (2IDO chain C).

SI Table 1 Axial and Rhombic component values used during the docking<sup>a</sup>

	Synthetic PCS <sup>b</sup>			Experimental PCS <sup>c</sup>		
	Dy <sup>3+</sup>	Er <sup>3+</sup>	Tb <sup>3+</sup>	Dy <sup>3+</sup>	Er <sup>3+</sup>	Tb <sup>3+</sup>
$\Delta \chi_{\text{ax}}{}^d$	10670.0	-2705.4	7282.4	10622.0	-2700.9	7275.0
$\Delta \chi_{rh}{}^d$	1252.8	-1130.8	1491.0	1254.9	-1184.9	1554.7

<sup>a</sup> Obtained by fitting the PCS values against  $\varepsilon$ 186 with the software Numbat

<sup>b</sup> The synthetic PCS generated with a level of noise of  $\pm 0.15$  ppm are fitted against the bound form of  $\varepsilon 186$ <sup>c</sup> The experimental PCS are fitted against the unbound form of  $\varepsilon 186$ <sup>d</sup> In units of  $10^{-28}/12/\pi$  m<sup>3</sup>