**Supplementary Table 1** Statistics for data collection and refinement of the off7/MBP complex.

Data collection:	
Space group	P21
Cell dimensions, Å	a= 74.68, b= 45.15, c= 79.57 α= γ= 90.0, β= 107.24
Resolution limits, Å	25.0 - 2.3
Observed reflections	total: 385166 unique: 22902
Completeness,%	98.7 (99.0)*
Redundancy	2.9
R <sub>sym</sub> (% on I)	7.8 (34.8)*
Refinement:	
Resolution range, Å	2.3
R-factor/R <sub>free</sub> , %	19.5/24.9
Ordered water molecules	214
rms deviation from ideal geometry:	
Bond lengths, Å	0.006
Bond angles, °	1.14
Average B factor, Å <sup>2</sup>	34.6

\* Numbers in parentheses refer to the highest-resolution shell.