

S2 Table. Crystallographic data and refinement statistics

PDB ID	4P5N
Source	NSLS X29A
Wavelength (Å)	0.9790
Resolution limits (Å)	35.51-1.49
Space group	P 1
Unit cell $a, b, c$ (Å) and $\alpha, \beta, \gamma$ (°)	31.77, 34.69, 38.25 and 73.93 72.85 79.46
Number of observations	64741
Number of unique reflections	23265
Completeness (%)	95.7(91.6)
Mean $I/\sigma I^c$	34.4(9.9)
$R_{merge}$ on $I^a$	0.048(0.15)
Cut-off criteria $I/\sigma I$	None
Redundancy	2.8(2.7)
<b>Refinement Program</b>	REFMAC 5.7.0032
Resolution limits (Å)	35.51 -1.49
Number of reflections (work/test)	22074/1191
$R_{work}^b$	0.135
$R_{free}$	0.177
$F_o, F_c$ correlation	0.97
Protein/H <sub>2</sub> O	1636/38
Mean B values (Å <sup>2</sup> )	15.8
Bonds (Å) / angles (°)	0.012/1.45
Ramachandran plot (favored/allowed)	97.0/3.0

<sup>a</sup> $R_{merge} = \sum_{hkl} \sum_i |I(hkl) - \langle I(hkl) \rangle| / \sum_{hkl} \sum_i I(hkl)$ .

<sup>b</sup> $R_{work} = \sum |F_o - F_c| / \sum F_o$ , where  $F_o$  and  $F_c$  are observed and calculated structure factors, respectively.

<sup>c</sup>Values in parentheses correspond to the high resolution bin (1.53 Å – 1.49 Å ).