**Supplementary File 2** Data collection and structure refinement statistics

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| --- | --- |
| Data Collection | mmSmc1(471-685)D574Y-mmSmc3(484-696) |
| Space group | *P*1 |
| Unit cell dimensions |  |
| a, b, c (Å) | 50.08, 60.85, 77.76 |
| α, β, γ (°) | 72.66, 88.43, 89.99 |
| Wavelength (Å) | 0.97960 |
| Resolution (Å) | 42.06-2.00 (2.03-2.00)a |
| Rsym (%) | 6.4 (17.6) |
| I/σ(I), (> 0) | 12.2 (2.7) |
| Completeness (%)b | 88.6 (76.6) |
| Redundancy | 2.6 (1.9) |
| Refinement |  |
| Resolution (Å) | 42.06-2.00 |
| No. of reflections | 52564 |
| Rwork / Rfree (%) | 21.9/26.9 |
| R.m.s deviations |  |
| Bond lengths (Å)  | 0.007 |
| Bond angles (º) | 0.859 |
| Average B-values (Å2) | 20.64 |
| Ramachandran plot (%) |  |
| Favored  | 97.7 |
| Allowed | 2.2 |
| Outliers | 0.1 |
| PDB ID | 7DG5 |

aThe values in parentheses are statistics from the highest resolution shell.

bThe values are for reflections with I/σ(I) > 0.