**Table S3.** Data collection and refinement statistics for AncC

AncC

|  |  |
| --- | --- |
| Data collection |  |
|  Space group | *P*61 |
|  Cell dimensions |  |
|  *a*, *b*, *c* (Å) | 82.38, 82.38 44.65 |
|  (°)  | 90, 90, 120 |
|  Resolution (Å) | 50-1.36 (1.41-1.36)\* |
|  *R*sym | 7.9 (85.8)\* |
|  *I* / *I* | 26.1 (2.7)\* |
|  Completeness (%) | 99.1 (99.7)\* |
|  Redundancy | 7.6 (7.2)\* |
| Refinement |  |
|  Resolution (Å) | 50-1.36 |
|  No. reflections | 37219 |
|  *R*work / *R*free | 13.4 / 16.6 |
|  No. atoms |  |
|  Protein | 2642 |
|  Water | 237 |
|  Sulfate | 2 |
|  *B*-factors |  |
|  Protein | 18.7 |
|  Water | 28.6 |
|  Sulfate | 25.5 |
|  R.m.s. deviations |  |
|  Bond lengths (Å) | 0.012 |
|  Bond angles (°) Ramachandran plot (%) | 1.3 |
|  Favored Allowed Disallowed | 98.71.30 |

\*Values in parentheses are for highest-resolution shell.