

**Table 2.** Crystallographic data collection and refinement statistics for the medium-dose data set

Protein Data Bank ID code	2j5m
Space group	C222 <sub>1</sub>
Unit cell dimensions a, b, c, Å	59.0, 150.4, 99.6
Beamline/ x-ray source	SLS X10SA
Wavelength, Å	1.008
Resolution of data, Å (high-resolution bin)	20-1.75 (1.80-1.75)
No. of observations/ unique reference	185,241/ 44,178
Completeness total (high), %	95.6 (89.3)
$I/\sigma I$ total (high)	10.9 (3.6)
$R_{\text{sym}}$ total (high), %	11.1 (41.3)
Wilson $B$ factor, Å <sup>2</sup>	26.6
Refinement	
$R_{\text{work}}/R_{\text{free}}$ , %	19.7/21.0
Protein residues (no. of atoms)	298 (2,316)
Sugar residues (no. of atoms)	18(213)
Water molecules	356
Ligands (total no. of atoms)	1 hydroperoxoanion (2) 1 EG (4), 1 acetate (4) 1 Mn, heme (43)
Overall $B$ factor, Å <sup>2</sup>	21.6
rms deviations	
Bond length, Å	0.006
Bond angles, °	1.04