

**Table I.** Crystallographic data and refinement statistics

	Native data set	Thiomersal derivative data set <sup>g</sup>
Space group	P2 <sub>1</sub> (No. 4)	P2 <sub>1</sub> (No. 4)
Cell axes <i>a</i> , <i>b</i> , <i>c</i> and $\beta$	31.9Å, 37.3Å, 56.4Å and 105.4°	31.8Å, 37.4Å, 56.5Å and 105.2°
Resolution range (outer shell)	50.0 (1.60-1.54 Å)	25.0 (1.7-1.66 Å)
No. of observed reflections	53616	90244
No. of unique reflections	18705	28522
$R_{\text{sym}}$ overall(outer shell) <sup>a</sup>	4.0 % ( 18.8%)	4.1% (14.7%)
$\langle I/\sigma(I) \rangle$ overall(outer shell)	14.8 (5.4)	16.2 (7.5)
Completeness overall(outer shell)	97.4% (90.1%)	95.9%(93.1%)
Phasing power (centric/acentric) <sup>b</sup>	0.90/1.14	
$R_{\text{Cullis}}$ (centric/acentric) <sup>c</sup>	0.82/0.77	
Figure-of-merit (centric/acentric) <sup>d</sup>	0.16/0.27	
No. of refined atoms		
protein	1030	
water	119	
$R$ -factor/free $R$ -factor <sup>e</sup>	0.18/0.22	
R.m.s.d. bond lengths/bond angles <sup>f</sup>	0.011Å/1.2°	

<sup>a</sup> $R_{\text{sym}} = \sum_h \sum_i |I_i(h) - \langle I(h) \rangle| / \sum_h \sum_i I_i(h)$ , where  $I_i(h)$  and  $\langle I(h) \rangle$  are the  $i$ th and mean measurement of the intensity of reflection  $h$ .

<sup>b</sup>Phasing power =  $\sum F_{\text{H}}^{\text{calc}} / \sum |F_{\text{PH}}^{\text{obs}} - F_{\text{PH}}^{\text{calc}}|$ , where  $F_{\text{H}}^{\text{calc}}$  is the calculated heavy atom amplitude and  $F_{\text{PH}}^{\text{obs}}$  and  $F_{\text{PH}}^{\text{calc}}$  are the observed and calculated heavy atom derivative structure factor amplitudes, respectively

<sup>c</sup> $R_{\text{Cullis}} = \sum |F_{\text{PH}}^{\text{obs}} \pm F_{\text{P}}^{\text{obs}}| - |F_{\text{H}}^{\text{calc}}| / \sum |F_{\text{PH}}^{\text{obs}} - F_{\text{P}}^{\text{obs}}|$ , where  $F_{\text{PH}}^{\text{obs}}$  is the observed heavy atom derivative structure factor amplitude,  $F_{\text{P}}^{\text{obs}}$  is the observed native structure factor amplitude, and  $F_{\text{H}}^{\text{calc}}$  is the calculated heavy atom amplitude

<sup>d</sup>Figure-of-merit =  $\alpha \int_0^{2\pi} P(\alpha) \exp(i\alpha) d\alpha / \int_0^{2\pi} P(\alpha) d\alpha$ , with  $\alpha$  ranging from 0 to  $2\pi$ .

<sup>e</sup> $R = \sum |F_{\text{P}}^{\text{obs}} - F_{\text{P}}^{\text{calc}}| / \sum F_{\text{P}}^{\text{obs}}$ , where  $F_{\text{P}}^{\text{obs}}$  and  $F_{\text{P}}^{\text{calc}}$  are the the observed and calculated structure factor amplitudes, respectively

<sup>f</sup>rmsd, root-mean-square-deviation from the parameter set for ideal stereochemistry (Engh and Huber, 1991)

<sup>g</sup>mercury-binding sites were at cysteine 228