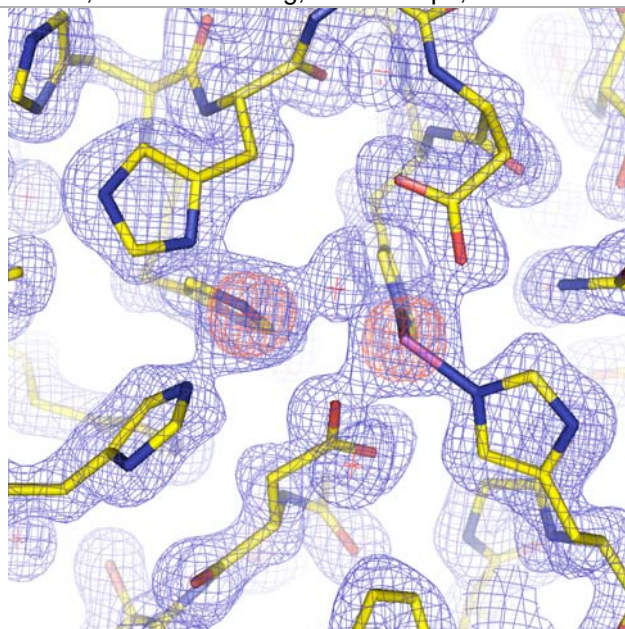
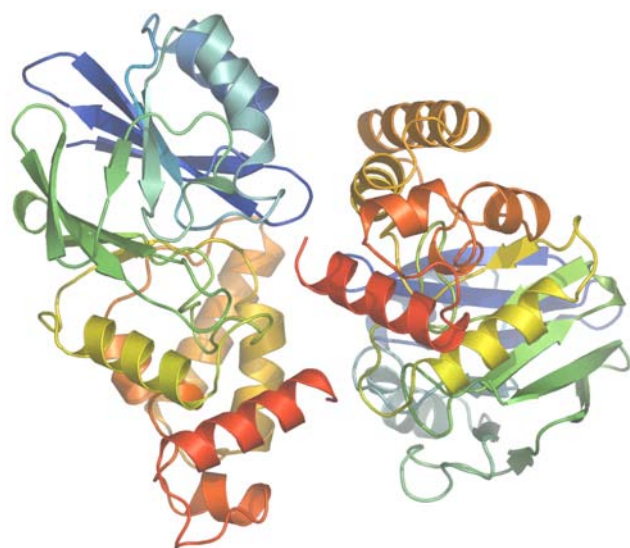


Center for Eukaryotic Structural Genomics

Protein Structure Data Summary

Target ID	GO.9639	
Source Organism	<i>Arabidopsis thaliana</i>	
Target Name	At2g31350.1	
PDB Entry	1XM8	Deposition: 01-Oct-2004
Function	glyoxalase II (EC: 3.1.2.6) (FF/Refine: 2Q42)	
Produced From	<i>E. coli</i> B834(DE3) p(LacI+RARE)	
Structure by X-ray	Resolution: 1.74	R-value (R-free): 14.2% (18.9%)
	No. of Residues: 254 (28,167)	Subunits/ASU: 2
Data Collected At	Advanced Photon Source Bio-CARS 14-BM-D 14-Feb-2004	
Authors	C.A. Bingman, S.T.M. Allard, D.W. Smith, G.E. Wesenberg, G.N. Phillips, Jr.	



Structural Features

At2g31350.1 was supplied by Chris Makaroff of the Department of Chemistry and Biochemistry of Miami University (Ohio). This is the first structure of a plant glyoxalase, the first structure of a mitochondrial isozyme of a glyoxalase of any organism, and the first structure of a b-lactamase fold containing protein that binds both Zn and Fe. The structure was solved using single-wavelength anomalous diffraction from the two native metals at Bio-CARS 14-BM-D, operating near the Se-edge. (The beamline was restricted to near 1 Å due to a broken mirror support.)

Percent Identity with Nearest PDB Structure at Time Solved	37.8% over 262 aa (1QH5)
Pfam Cluster	Lactamase_B
Protonet Cluster Size : Structures in PDB	134 : 1

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