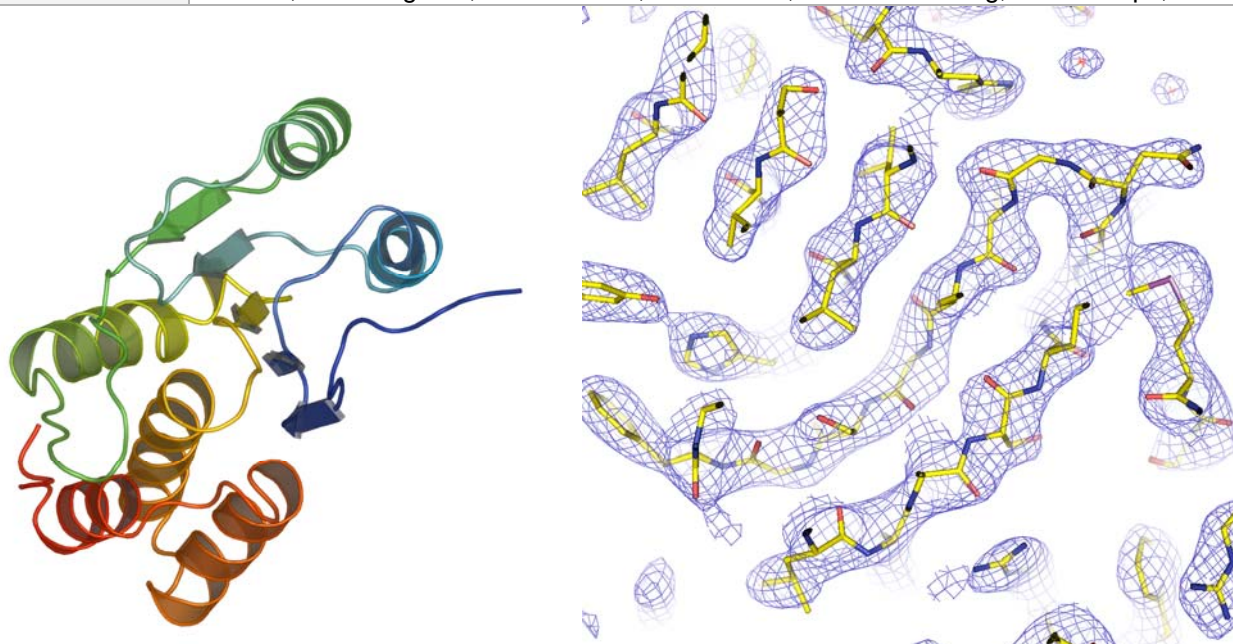


Center for Eukaryotic Structural Genomics

Protein Structure Initiative



Target ID	GO.605	
Source Organism	<i>Arabidopsis thaliana</i>	
Target Name	At1g05000.1	
PDB Entry	1XRI	Deposition: 14-Oct-2004
Function	putative phosphoprotein phosphatase (FF/Refine: 2Q47)	
Produced From	<i>E. coli</i> B834(DE3) p(RARE) pVP-13	
Structure by X-ray	Resolution: 3.3 Å	R-value (R-free): 20.4% (24.9%)
	No. of Residues/ASU: 151x2	Subunits/ASU: 2
Data Collected At	Advanced Photon Source SBC-CAT 19-BM, BioCARS 14-ID-B	
Authors	E. Bitto, C.A. Bingman, S.T.M. Allard, D.W. Smith, G.E. Wesenberg, G.N. Phillips, Jr.	



Structural Features

Ser/Thr and Tyr dual specificity phosphatases are a group of enzymes with both Ser/Thr (EC: 3.1.3.16) and tyrosine specific protein phosphatase (EC: 3.1.3.48) activity able to remove both the serine/threonine or tyrosine-bound phosphate group from a wide range of phosphoproteins, including a number of enzymes which have been phosphorylated under the action of a kinase. Dual specificity protein phosphatases (DSPs) regulate mitogenic signal transduction and control the cell cycle. Tyrosine specific protein phosphatases catalyze the removal of a phosphate group attached to a tyrosine residue. They are also very important in the control of cell growth, proliferation, differentiation, and transformation.

Percent Identity with Nearest PDB Structure at Time Solved	1D5R 26% (91aa); 1P15 29% (88 aa)
Pfam Cluster	Y_phosphatase2
Sequence Family Size	107

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