



Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali (/jspui/)

/ Publications of IISER Mohali (/jspui/handle/123456789/4)

/ Research Articles (/jspui/handle/123456789/9)

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/4990>

Title:	Disordered regions endow structural flexibility to shell proteins and function towards shell–enzyme interactions in 1,2-propanediol utilization microcompartment
Authors:	Hazra, Jagadish Prasad (/jspui/browse?type=author&value=Hazra%2C+Jagadish+Prasad)
Keywords:	shell proteins and function shell–enzyme interactions 1,2-propanediol utilization microcompartment
Issue Date:	2022
Publisher:	Taylor and Francis Group
Citation:	Journal of Biomolecular Structure and Dynamics,2138552.
Abstract:	Intrinsically disordered regions in proteins have been functionally linked to the protein–protein interactions and genesis of several membraneless organelles. Depending on their residual makeup, hydrophobicity or charge distribution they may remain in extended form or may assume certain conformations upon binding to a partner protein or peptide. The present work investigates the distribution and potential roles of disordered regions in the integral proteins of 1,2-propanediol utilization microcompartments. We use bioinformatics tools to identify the probable disordered regions in the shell proteins and enzyme of the 1,2-propanediol utilization microcompartment. Using a combination of computational modelling and biochemical techniques we elucidate the role of disordered terminal regions of a major shell protein and enzyme. Our findings throw light on the importance of disordered regions in the self-assembly, providing flexibility to shell protein and mediating its interaction with a native enzyme.
Description:	Only IISER Mohali authors are available in the record.
URI:	https://doi.org/10.1080/07391102.2022.2138552 (https://doi.org/10.1080/07391102.2022.2138552) http://hdl.handle.net/123456789/4990 (http://hdl.handle.net/123456789/4990)
Appears in Collections:	Research Articles (/jspui/handle/123456789/9)

Files in This Item:

File	Description	Size	Format
Need To Add...Full Text_PDF. (/jspui/bitstream/123456789/4990/1/Need%20To%20Add%e2%80%a6Full%20Text_PDF.)		15.36 kB	Unknown

[View/Open \(/jspui/\)](#)

[Show full item record \(/jspui/handle/123456789/4990?mode=full\)](#)

[Statistics \(/jspui/handle/123456789/4990/statistics\)](#)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.

