Instrumental Analysis of Intrinsically Disordered Proteins. Assessing Structure and Conformation. Wiley Series in Protein and Peptide Science

Description: Instrumental techniques for analyzing intrinsically disordered proteins

The recently recognized phenomenon of protein intrinsic disorder is gaining significant interest among researchers, especially as the number of proteins and protein domains that have been shown to be intrinsically disordered rapidly grows. The first reference to tackle this little–documented area, Instrumental Analysis of Intrinsically Disordered Proteins: Assessing Structure and Conformation provides researchers with a much–needed, comprehensive summary of recent achievements in the methods for structural characterization of intrinsically disordered proteins (IDPs).

Chapters discuss:

Assessment of IDPs in the living cell

Spectroscopic techniques for the analysis of IDPs, including NMR and EPR spectroscopies, FTIR, circular dichroism, fluorescence spectroscopy, vibrational methods, and single–molecule analysis

Single–molecule techniques applied to the study of IDPs

Assessment of IDP size and shape

Tools for the analysis of IDP conformational stability

Mass spectrometry

Approaches for expression and purification of IDPs

With contributions from an international selection of leading researchers, Instrumental Analysis of Intrinsically Disordered Proteins: Assessing Structure and Conformation fills an important need in a rapidly growing field. It is required reading for biochemists, biophysicists, molecular biologists, geneticists, cell biologists, physiologists, and specialists in drug design and development, proteomics, and molecular medicine with an interest in proteins and peptides.

Contents:

PREFACE.

INTRODUCTION TO THE WILEY SERIES ON PROTEIN AND PEPTIDE SCIENCE.

LIST OF CONTRIBUTORS.

LIST OF ABBREVIATIONS.

PART I ASSESSING IDPs IN THE LIVING CELL.

1 IDPs and Protein Degradation in The Cell (Yosef Shaul, Peter Tsvetkov, and Nina Reuven).

2 The Structural Biology of IDPs Inside Cells (Philipp Selenko).

PART II SPECTROSCOPIC TECHNIQUES.

3 Nuclear Magnetic Resonance Spectroscopy Applied to (Intrinsically) Disordered Proteins (Frans A. A. Mulder, Martin Lundqvist, and Ruud M. Scheek).

4 Atomic–Level Characterization of Disordered Protein Ensembles Using NMR Residual Dipolar Couplings (Martin Blackledge, Pau Bernadó, and Malene Ringkjøbing Jensen).
5 Determining Structural Ensembles for Intrinsically Disordered Proteins (Gary W. Daughdrill).

6 Site–Directed Spin Labeling EPR Spectroscopy (Valérie Belle, Sabrina Rouger, Stéphanie Costanzo, Sonia Longhi, and André Fournel).

7 The Structure of Unfolded Peptides and Proteins Explored by Vibrational Spectroscopy (Reinhard Schweitzer–Stenner, Thomas J. Measey, Andrew M. Hagarman, and Isabelle C. Dragomir).

8 Intrinsically Disordered Proteins and Induced Folding Studied by Fourier Transform Infrared Spectroscopy (Antonino Natalello and Silvia Maria Doglia).


10 Circular Dichroism of Intrinsically Disordered Proteins (Robert W. Woody).

11 Fluorescence Spectroscopy of Intrinsically Disordered Proteins (Eugene A. Permyakov and Vladimir N. Uversky).

12 Hydration of Intrinsically Disordered Proteins From Wide–Line NMR (Kálmán Tompa, Monika Bokor, and Peter Tompa).

PART III SINGLE–MOLECULE TECHNIQUES.

13 Single–Molecule Spectroscopy of Unfolded Proteins (Benjamin Schuler).

14 Monitoring the Conformational Equilibria of Monomeric Intrinsically Disordered Proteins by Single–Molecule Force Spectroscopy (Massimo Sandal, Marco Brucale, and Bruno Samorì).

PART IV METHODS TO ASSESS PROTEIN SIZE AND SHAPE.

15 Analytical Ultracentrifugation, a Useful Tool to Probe Intrinsically Disordered Proteins (Florence Manon and Christine Ebel).

16 Structural Insights into Intrinsically Disordered Proteins by Small–Angle X–Ray Scattering (Pau Bernadó and Dmitri I. Svergun).

17 Dynamic and Static Light Scattering (Klaus Gast).

18 Analyzing Intrinsically Disordered Proteins by Size Exclusion Chromatography (Vladimir N. Uversky).

PART V CONFORMATIONAL STABILITY 545


20 Detecting Disordered Regions in Proteins by Limited Proteolysis (Angelo Fontana, Patrizia Polverino de Laureto, Barbara Spolaore, Erica Frare, and Marcello Zambonin).

PART VI MASS SPECTROMETRY.


PART VII EXPRESSION AND PURIFICATION OF IDPS.

22 Recombinant Production of Intrinsically Disordered Proteins for Biophysical and Structural Characterization (Dmitri Tolkatchev, Josee Plamondon, Richard Gingras, Zhengding Su, and Feng Ni).

23 Large–Scale Identification of Intrinsically Disordered Proteins (Vladimir N. Uversky, Marc S. Cortese, Peter Tompa, Veronika Csizmok, and A. Keith Dunker).

INDEX.


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