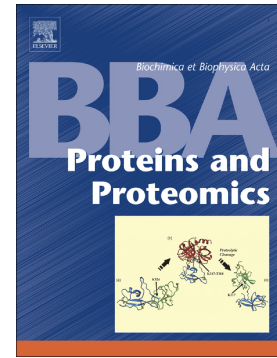


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Md. Golam Kabir, Mohammad Monirul Islam, Yutaka Kuroda



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Reversible association of proteins into sub-visible amorphous aggregates using short solubility controlling peptide tags

¹Md. Golam Kabir, ²Mohammad Monirul Islam, ¹Yutaka Kuroda

¹Department of Biotechnology and Life Sciences, Graduate School of Engineering, Tokyo University of Agriculture and Technology, 2-24-16 Nakamachi, Koganei-shi, Tokyo 184-8588, Japan and ²Department of Biochemistry and Molecular Biology, University of Chittagong, Chittagong-4331, Bangladesh.

Correspondence to Y.K.

Email: ykuroda@cc.tuat.ac.jp

Telephone/Fax: +81-42-388-7794

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Key words: Aggregation; Protein oligomerization; Dynamic light scattering; Limited proteolysis; Circular Dichroism.

Abbreviations: BPTI: Bovine Pancreatic Trypsin Inhibitor, CD: Circular Dichroism, DLS: Dynamic Light Scattering, SCP tags: Solubility Controlling Peptide tags, SLS: Static Light Scattering

Nomenclature: aggregates: non-covalent association of proteins; sub-visible aggregates: aggregates that are not visible to the naked eye and remain in the soluble fraction upon centrifugation; amorphous aggregates: non-covalent association of proteins in either native or denatured states but without forming a specific high order structure. We will use “oligomers” and “aggregates” indifferently, but preferably “oligomers” for small assemblies, “aggregates” for large ones. BPTI-19A (Untagged BPTI-19A or untagged BPTI): A simplified BPTI variants containing 19 alanine used as our reference variant. C2G or BPTI-C2G: BPTI-19A with 2 glycine added at its C-termini used as a control variant.

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