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Title:	Investigating the role of Inter domain linkers in protein folding kinetics
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Abstract:	Domains are independent folding entities of a multimodular protein. They are known to be the constitutional unit of a protein structure. It has also been found that these domains are connected to one another via short polypeptide chains, known as interdomain linkers (IDLs). Distinguishing the IDLs from the tandem arrangement of domains in a multidomain protein would characterize the domain boundaries of the respective domains and this construes the independent folding property of a domain. Our objective is to delineate the effect of different IDLs on protein folding kinetics and define the mechanism through which the kinetic rates are influenced. Here we redefine the properties of IDLs to best suit the independent nature of individual domains. In addition to facilitating a good enough separation between domains, IDLs must cut off the secondary structure propagation to preserve the independent property of the domain. This discontinuity in the secondary structure divides one tertiary unit from another providing each domain an individual identity within the domain cluster. Here we use the dimers of 27 th domain of the immunoglobulin- like band in titin, I27 with four distinct linkers to delineate the exact mechanism of defining domain boundaries and outline the impact of the secondary structure termination at the boundaries on domain folding kinetics.
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