

1 existence, Hsp70/Hsp40 (DnaK/DnaJ) escorts the folding of the polypeptide until a correct
2 functional three-dimensional structure is attained. This checks misfolding of the proteins.
3 Still, if something goes wrong and a protein is accidentally misfolded, Hsp70/Hsp40
4 recognizes such species and fold them back to their native functional form. This prevents their
5 aggregation and thus formation of toxic protein aggregates. HS exaggerates protein-
6 misfolding and leads to formation of toxic protein aggregates. Protein aggregates, in general,
7 is cleared either by proteolytic degradation or resolubilization of entangled proteins. However,
8 under HS conditions, where most of the functional proteins form aggregates, ClpB functions
9 by disentangling individual proteins from these aggregates. In concert with Hsp70/Hsp40
10 system, ClpB liberates nascent polypeptides that are believed to undergo protein folding under
11 guidance of sHsps. Through the resurrection activity, ClpB helps cell to survive HS
12 conditions.

Accepted Version