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Norbert Sewald and Hans-Dieter Jakubke

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Cover
The cover picture shows the TPR1 domain of Hop in complex with -Gly-Pro-Thr-Ile-Glu-Glu-Val-Asp-OH (GPTIEEVD). TPR domains participate in the ordered assembly of Hsp70-Hsp90 multichaperone complexes.
The TPR1 domain of the adaptor protein Hop specifically recognizes the C-terminal heptapeptide -Pro-Thr-Ile-Glu-Glu-Val-Asp-OH (PTIEEVD) of the chaperone Hsp70 while the TPR2A domain of Hop binds the C-terminal pentapeptide -Met-Glu-Glu-Val-Asp-OH (MEEVD) of the chaperone Hsp90. The EEVD motif is conserved in all soluble forms of eukaryotic Hsp70 and Hsp90 proteins.
Peptide binding is mediated with the EEVD motif. Both carboxy groups of the C-terminal aspartate anchor the peptide by electrostatic interactions. The hydrophobic residues located N-terminally within the peptide are critical for specificity.
[C. Scheufler, A. Brinker, G. Bourenkov, S. Pegoraro, L. Moroder, H. Bartunik, F.U. Hartl, I. Moarefi, Structure of TPR domain-peptide complexes: critical elements in the assembly of the Hsp70-Hsp90 multichaperone machine, Cell 2000, 101, 199; PDB entry 1ELW (http://www.rcsb.org/pdb/)]

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