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Letters to the Editor

^{1}H, ^{13}C and ^{15}N resonance assignments of the cytosolic domain of Tom20 from *Arabidopsis thaliana*

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Tom20, the 'master' receptor of the Translocase of the Outer Membrane (TOM) complex, recognizes the mitochondrial targeting signal of substrate proteins (Koehler, 2004). Functional Tom20s have been isolated from a number of organisms, however, sequence analyses show plant Tom20s have no apparent sequence identity with the animal/fungal Tom20s, suggesting structural differences. To investigate these differences we are determining the structure of *Arabidopsis thaliana* Tom20 (*At*Tom20) to compare to the known structure of Rat Tom20 (Abe et al., 2000). The cytosolic domain of *At*Tom20 (residues 1–145) was over-expressed and ^{15}N or $^{13}C/^{15}N$ labelled. Assignment of resonances was straightforward using a combination of triple resonance experiments. Poor dispersion of the phenylalanine H^{δ} and H^{ε} made unambiguous assignment of many aromatic resonances difficult. A total of 98 and 91% of backbone and side chain assignments have been obtained. BMRB deposit: Accession No. 6626.

References: Abe et al. (2000) *Cell*, **100**, 551–560: Koehler (2004) *Ann. Rev. Cell Dev. Biol.*, **20**, 309–335

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^{1}H, ^{15}N and ^{13}C assignments of an intramolecular Lhx3:ldb1 complex

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Lhx3 is a LIM homeodomain (LIM-HD) transcription factor with essential roles in pituitary and motor neuron development and homeostasis. All LIM-HD and related LIM-only (LMO) proteins bind with high affinity to the LIM domain binding protein 1 (ldb1), which is an essential and widely expressed cofactor (Matthews and Visvader, 2003). Like other LIM domains from LIM-HD and LMO proteins, recombinant forms of Lhx3 tend to be insoluble and unstable, but can be stabilized by the presence of ldb1-LID peptides (e.g. Deane et al., 2004). In order to produce milligram quantities of a stable Lhx3:ldb1 (LID) complex, an intramolecular complex of the two proteins was engineered, denoted as FLIX3. 2D and 3D heteronuclear NMR experiments were performed with uniformly ^{15}N-, ^{13}C-labelled FLIX3. Complete backbone assignments, 93% side-chain hydrogen and 92% side-chain carbon assignments have been made with the exception of residues 1–5 (N-terminal residues), 47–56 (part of the glycine/serine linker), and 85 (not present in data). BMRB deposit Accession No. 6658.

References: Matthews and Visvader (2003) *EMBO Rep.*, 1132–1137: Deane et al. (2004) *EMBO J.*, **23**, 3589–3598

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