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Letter to the Editor

NMR Assignment of the Human EphrinB2 Ectodomain

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The binding between membrane-anchored ephrinB and EphB receptor initiates bi-directional signaling which controls pattern development and morphogenesis, such as axon guidance, cell migration, segmentation, and angiogenesis. EphrinB2 residues 25–175 constitute the ectodomain domain for Eph receptor binding as well as Nipah and Hendra virus entry, thus representing an attractive drug target for designing molecules to treat cancers and viral infections. In order to determine its NMR structure and facilitate drug design/screen, we have successfully ^{15}N-/^{13}C-labeled ephrinB2 ectodomain by over-expression in *E. coli* BL21 cells followed by *in vitro* refolding. Backbone assignments were completed for all 151 residues except for 7 Pro, Glu50, Tyr52, Asp58 and Lys79 whose HSQC peaks could not be observed under the experimental conditions used for structure determination. Chemical shifts for ^{13}C and non-labile hydrogens were also completed for all side-chain atoms except for 7 prolines and Glu50, Lys79 due to severe spectral overlap, as well as Ser13, Ser14, Cys38 and Cys77 due to very weak signals. BMRB deposit with accession number 7220.

References: Pasquale (2005) *Nat. Rev. Mol. Cell Biol.*, **6**, 462–475; Song, (2003) *J. Biol. Chem*, **278**, 24714–24720.

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