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LETTER TO THE EDITOR

^{1}H, ^{13}C, and ^{15}N chemical shift assignments for the N-terminal extracellular domain of T-cadherin

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T-cadherin, also known as truncated/ H-/heart-cadherin, or Cadherin13 (= precursor version), is a glycoprotein that functions in Ca^{2+}-dependent homophilic cell adhesion. It is unique within the cadherin family since it lacks the usual cytoplasmic and membrane domains and instead attaches to the membrane via a glycophosphoinositol (GPI) anchor. Moreover, a tryptophan conserved in all the other cadherins that plays a crucial role for their adhesive function is replaced by an isoleucine. In order to study the structure and adhesion properties of T-cadherin, the ^{1}H, ^{15}N, and ^{13}C chemical shift resonances of human T-cadherin first extracellular domain (1-105 of the processed form) and 56 residues of the second extracellular domain (106-223) were assigned using multidimensional heteronuclear NMR experiments and two different constructs of human cadherin (1-105 = Tcad1 and 1-223 = Tcad12). For Tcad1 97% of the backbone and almost all of the side chain ^{1}H, ^{15}N and ^{13}C resonances could be assigned. The only side chain assignments missing are those for H_{ζ} and C_{ζ} of F17 and the side chain amides of N53 and N55. Chemical shift values for human T-cadherin (1-105) have been deposited in the BioMagResBank under accession number 7268.

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