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Cadherin Domain

National Cancer Institute

Source

National Cancer Institute. *Cadherin Domain*. NCI Thesaurus. Code C13929.

Evolutionary related to desmosomal desmogleins, cadherins contain a signal sequence, a propeptide of around 130 residues, an extracellular domain of around 600 residues, a single transmembrane domain, and a well-conserved C-terminal cytoplasmic domain of about 150 residues. The extracellular domain typically consists of four Cadherin Domain repeats of about 110 residues; an adjacent fifth domain contains four conserved cysteines. The domain includes conserved Asp and Arg residues that may be involved in calcium binding. Tissue-specific cadherin glycoproteins are responsible for homophilic calcium-dependent cell-cell adhesion likely involved in cell type sorting during morphogenesis, histogenesis, and regeneration. They may also regulate tight and gap junctions. (NCI)