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(54) Title: PROTEIN FOR BLOCKING PLATELET ADHESION

(57) Abstract

A naturally occurring protein isolated from the saliva of the medicinal leech *Hirudo medicinalis* is described which strongly binds to collagen thus acting as an inhibitor of natural platelet adhesion to collagen. The protein has a molecular weight of about 12 000, an acidic isoelectric point and contains six cysteins. The protein was sequenced and the gene was cloned from a *H. medicinalis* cDNA–library. Procedures for producing such polypeptide by recombinant techniques are disclosed. The recombinant and the natural occurring proteins are potent inhibitors of collagen–dependent platelet adhesion and therefore useful for the therapeutic treatment of various conditions related to hard disease and diseases of the circulation system. Furthermore the protein is useful for coating natural or artificial collagen surfaces in order to render them nonadhesive for cells and prevent the activation of cells.