

Immunohistochemical localization of periostin in human gingiva

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The periostin is a matricellular protein expressed in collagen-rich tissues including some dental and periodontal tissues where it is regulated by mechanical forces, growth factors and cytokines.

Interestingly the expression of this protein has been found modified in different gingival pathologies although the expression of periostin in normal human gingiva was never investigated. Here we used Western blot and double immunofluorescence coupled to laser-confocal microscopy to investigated the occurrence and distribution of periostin in different segments of the human gingival in healthy subjects. By Western blot a protein band with an estimated molecular mass of 94 kDa was observed. Periostin was localized at the epithelial-connective tissue junction, or among the fibers of the periodontal ligament, and never co-localized with cytokeratin or vimentin thus suggesting it is an extracellular protein. These results demonstrate the occurrence of periostin in adult human gingiva; its localization suggests a role in the bidirectional interactions between the connective tissue and the epithelial cells, and therefore in the physiopathological conditions in which these interactions are altered. © Copyright T. Cobo et al., 2015.

Human gingiva

Matricellular proteins

Periostin

cell adhesion molecule

keratin

POSTN protein, human

vimentin

adolescent

adult

cytology

female

gingiva

human

male

metabolism

periodontal ligament

Adolescent

Adult

Cell Adhesion Molecules

Female

Gingiva

Humans

Keratins

Male

Periodontal Ligament

Vimentin