Tissue microarray analysis of interleukin-20 expression

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摘要

Abstract

Knowledge about the biological functions and clinical implications of interleukin (IL)-20, a recently discovered cytokine in the IL-10 family, is still incomplete. Our aim was to determine the distribution of IL-20 expression and to delineate the cell types that express IL-20 in healthy and neoplastic tissue, because this information will significantly affect the exploration of its pathophysiological roles. We used tissue microarray technology and an immunohistochemical survey using an anti-IL-20 monoclonal antibody to examine IL-20 expression in 36 non-neoplastic and 14 neoplastic tissues. IL-20 protein was positively stained in 30 non-neoplastic tissue types and five major cell types: epithelial cells, myoepithelial cells, endothelial cells, macrophages, and skeletal muscle cells. We also found that several types of tumor cells stained positive for IL-20, especially in squamous cell carcinoma of the skin, tongue, esophagus, and lung. Our data provide valuable references for further investigation of the biological functions and clinical implications of IL-20 in humans.