血管内皮細胞に発現するMTA1はS100A4を介する事で新たな腫瘍血管新生の阻害標的になりうる

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血管内皮細胞に発現する MTA1 は S100A4 を介する事で新たな腫瘍血管新生の阻害標的になりうる(47/50)

MTA1 in endothelial cells is a novel target inhibiting tumor angiogenesis via S100A4 regulation (95/100)

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Metastasis-associated proteins, such as S100A4 and MTA1, have been studied for over two decades, but the correlation between them is not understood. In this study, we revealed that MTA1 is related to S100A4 in tumor angiogenesis. First, we showed that the suppression of MTA1 in endothelial cells by murine MTA1 siRNA (mMTA1 siRNA) inhibited tube formation in vitro and in vivo. Next, we revealed that the inhibition of angiogenesis by mMTA1 siRNA mediates downregulation of S100A4 followed by promoting phosphorylation of non-muscle myosin IIA (NMIIA). Finally, we found that mMTA1 siRNA decreased the number of the CD105-positive neovessels in a xenograft model. Additionally, these vessels in control siRNA-treated tumors were present throughout the tumors, whereas those in mMTA1 siRNA-treated tumors localized only in tumor periphery. These data suggested that the MTA1-S100A4-NMIIA axis in endothelial cells as a novel pathway in tumor angiogenesis and could be a target for suppressing tumor growth and metastasis. (1021/1040)