

学位論文の要旨

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主論文の題名

Promoter hypermethylation of Ras-related GTPase gene *RRAD* inactivates a tumor suppressor function in nasopharyngeal carcinoma

主論文の要旨

Nasopharyngeal carcinoma (NPC) is endemic in southern China. In a genome-wide screen for genes inactivated by promoter hypermethylation in NPC cell lines, we identified Ras-related associated with diabetes (*RRAD*). Expression of *RRAD* was down-regulated in NPC cell lines and 83.3% (30/36) primary tumors. *RRAD* was aberrantly methylated in NPC cell lines and 74.3% (26/35) primary tumors, but not in normal nasopharyngeal epithelium. Ectopic *RRAD* expression inhibited the growth of NPC cells, colony formation, and cell migration. These results indicate that *RRAD* might act as a functional tumor suppressor and its epigenetic inactivation may play an important role in NPC development