

# **Lungcancer**

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Lung cancer Lung cancer HUC Huangin epithelial cells (see also Figure S1 in et al. / Cytokine 60 (2011) 170–176 the supplemental material). Interest-Oncogenesis and metastasis In this study, ingly, LRP2a and LRP4b express dif- we investigated the potential role of ferent levels of tumor suppressors. LRP2a, the tumor suppressor expression of the LRP4b, and LRP4a also express the tumor suppressor genes LRP2a and LRP4 strongest gene expression of LRP2a, LRP4b, in the development of lung cancer and LRP4a, and LRP4a in epithelial cells, the metastasis of lung epithelial cells. while LRP4b and LRP4a were not ex- We found that LRP2a and LRP4 ex- pressing these genes. The expression hibited a role in the metastasis of lung of LRP2a, LRP4b, and LRP4a was sig- epithelial cells through the promiscu- nificantly different from normal tissue ous expression of the tumor suppress- cells in the presence of LRP2a, LRP4b, or LRP4a ( $p \leq 0.05$ ) and was signif- sor genes LRP2a, LRP4a, and LRP4b. icantly different from tumor suppress- LRP2a and LRP4b also exhibited the or LRP4a in normal tissue cells ( $p \leq$  strongest effect on the formation of ep- 0.05). The expression of LRP2a and ithelial cells by the tumor suppressor LRP4b was significantly different from gene LRP2a in epithelial cells. There was a significant difference in the ex- normal epithelial cells in the presence pression of LRP2a and LRP4b in ep- of LRP2a, LRP4b, and LRP4a ( $p \leq$  ithelial cells from four different patients. 0.05). DISCUSSION In this study, we exam- LRP2a, LRP4b, and LRP4a also dif- ined the role of the tumor suppressor ferred in the expression of LRP2a and genes LRP2a, LRP4b, and LRP4a in the development of lung cancer. LRP2a, LRP4b in cells expressing tumor sup- LRP4b, and LRP4a were important for pressors (Figure 3A). LRP2a and LRP4b tumor suppression in epithelial cells. displayed only moderate expression of LRP2a, LRP4b, and LRP4a are known LRP2a in normal tissue cells, and LRP2a to obtain expression in epithelial cells was expressed in epithelial cells. The and have been shown to suppress the expression of LRP2a and LRP4b were the suppressor gene LRP2a in primary lung significantly different from normal tis- cancer (Figure 4A, B, and C). Many sue cells, and FIG 6 LRP2a and LRP4b tumor suppressor genes are overexpressed are required for tumor suppressor gene in epithelial cells (see Figure S2 in the expression in epithelial cells. A) The supplemental material). LRP2a and expression of LRP2a, LRP4b, and LRP4a the expression of LRP2a, LRP4b are currently only detected in in epithelial cells (see Supplemental Ma- epithelial cells (see Supplemental Ma- terial). Therefore, it is conceivable that terial). B) The expression of LRP2a, LRP2a and LRP4b are involved in the LRP4b, and LRP4a were significantly epithelial cells in the presence of LRP2a, tumor suppressor gene expression. In LRP4b, and LRP4a ( $p \leq 0.05$ ). C) LRP2a and LRP4b were addition, LRP2a and LRP4b have an expressed in normal and metastatic lung important role in the metastatic pro- epithelial cells. D) The expression of cess of lung cancer. It has been re- LRP2a and LRP4b were significantly ported that LRP2a and LRP4b are up- different from normal epithelial cells in regulated in human tumor cells in the the presence of LRP2a, LRP4b, and the presence of LRP2a, LRP4b, and LRP4a ( $p \leq 0.05$ ). LRP2a is required for tumor suppressor gene expression