—Photogravure—

Epithelial to Mesenchymal Transition of Lung Cancer Cells

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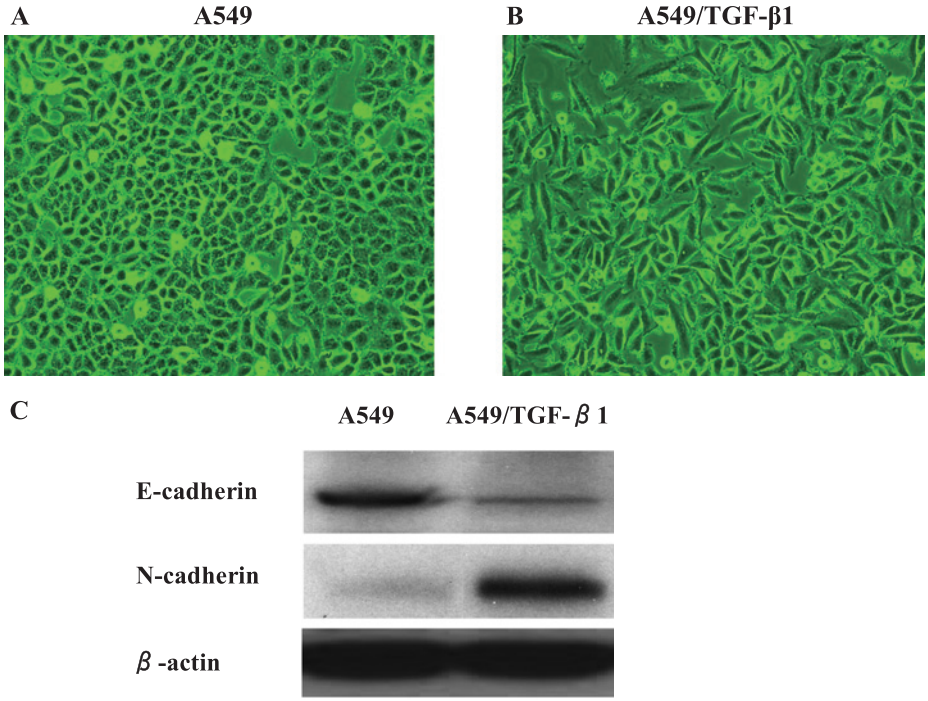

Fig. 1

Abstract

Epithelial to mesenchymal transition (EMT) is a process by which cells undergo a morphological switch from the epithelial polarized phenotype to the mesenchymal fibroblastoid phenotype and which can be elicited by transforming growth factor-β1 (TGF-β1). EMT has been recognized to play pivotal roles in several diverse processes during embryonic development, chronic inflammation and fibrosis, and the progression of solid tumors, including lung cancer. EMT is a crucial event for lung cancer cells to acquire invasive and metastatic phenotypes. These findings suggest that EMT is a potential target for the chemoprevention and treatment of lung cancer.

Fig. 1 TGF-β1-stimulated EMT of A549 lung cancer cells
A549 cells were treated with 5 μg/mL of TGF-β1 for 48 hours and were then designated as A549/TGF-β1 cells. The cells were observed under a light microscope. (A) A549 cells exhibit a classic epithelial morphology. (B) In contrast, A549/TGF-β1 cells appeared less uniformly epithelial. (C) Protein expression of EMT markers of A549/TGF-β1 cells. Lysates from the A549 and A549/TGF-β1 cells were subjected to Western blotting. Consistent with EMT, A549/TGF-β1 cells lost E-cadherin expression and gained N-cadherin expression.

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