

Full text open access online (Since 2001)

©  Kamla-Raj IJHG 2024

PRINT: ISSN 0972-3757 ONLINE: ISSN 2456-6330

Int J Hum Genet, 24(1): 29-43 (2024)

DOI: 10.31901/24566322.2024/24.01.870

Hsa circ ACTG1 Promotes Cell Growth of Bladder Cancer Through TGF- β 1 Signalling Pathways by miR-744-5p

**Shengming Lu[#], Changkun Liu^{*,*}, Kun Jin, Ya Zhou, Ye Shen, Tianbao Huang
and Guangchen Zhou**

***Department of Urology, The Northern Jiangsu People's Hospital/The Northern Jiangsu
People's Hospital Affiliated to Yangzhou University, Yangzhou 225001, China***

KEYWORDS Bladder Cancer. Circ ACTG1. MiR-744-5p. Notch. Transforming Growth Factor-beta1

ABSTRACT This study investigated the mechanism of circ ACTG1 in invasion and metastasis of patients with bladder cancer. As a result, the expression of circ ACTG1 expression was augmented in a model of bladder cancer. Circ ACTG1 promoted bladder cancer cell growth by miR-744-5p through the induction of TGF- β 1/Jagged1/Notch. Si-miR-744-5p promoted cell growth of bladder cancer cells. Moreover, miR-744-5p attenuated the effects of circ ACTG1 on cell growth of bladder cancer cells. The inhibition of TGF- β 1 also inhibited the effects of circ ACTG1 on cell growth of bladder cancer cells. Summary, the present findings reveal that circ ACTG1 promotes cell growth of patients with bladder cancer through TGF- β 1/Jagged1/NOTCH signalling pathways by miR-744-5p.