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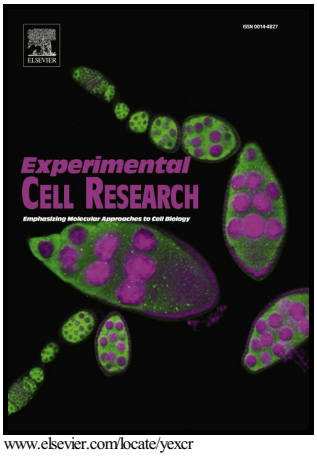

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RNA binding protein tristetraprolin down-regulates autophagy in lung adenocarcinoma cells

Fei Dong[a], Cen Li[b], Pu Wang[a], Xiaoya Deng[a], Qinli Luo[a], Xiaokui Tang[a*1], Li Xu[a*1]

[a]Department of Respiratory and Critical care Medicine, The First Affiliated Hospital of Chongqing Medical University, Chongqing, China

[b]Department of Pharmacy, The First Affiliated Hospital of Chongqing Medical University, Chongqing, China.

email: txk1200@126.com;

email: xuliglee@126.com.

[*]Correspondence to: Xiaokui Tang, Department of Respiratory and Critical care Medicine, The First Affiliated Hospital of Chongqing Medical University, Chongqing 400016, China. Tel: +86 023 89012261 ; Fax: +86 023 89012833.

Abstract

Tristetraprolin (TTP) is the most well-known member of RNA-binding zinc-finger protein that play a significant role in accelerating mRNA decay. Increasingly studies have reported that TTP was functioned as a tumor suppressor gene in several types of carcinomas, while its underlying mechanism is not clear yet. In the current study, we found that TTP overexpression decreased cell proliferation and increased cell death in lung adenocarcinoma cells, with the cell cycle arrest at the S phase. Remarkably, instead of inducing cell apoptosis directly, TTP overexpression alters cell autophagy. Our studies demonstrate that TTP overexpression has no effect on apoptosis related genes, but decreases the expression of autophagy-related genes, including Beclin 1 and LC3II. The level of autophagy flux assessed by infection with the mGFP–RFP–

[1] these authors have contributed equally to this paper. They are co-corresponding authors.