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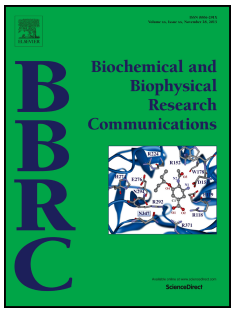

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TUG1 mediates methotrexate resistance in colorectal cancer via miR-186/CPEB2 axis

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Abstract

Colorectal cancer (CRC) is a common malignancy, most of which remain unresponsive to chemotherapy. Methotrexate (MTX) is one of the earliest cytotoxic drugs and serves as an anti-metabolite and anti-folate chemotherapy for various types of cancer. However, MTX resistance prevents its clinical application in cancer therapy. Thereby, overcoming the drug resistance is an alternative strategy to maximize the efficacy of MTX therapies in clinics. Long non-coding RNAs (lncRNAs) have gained widespread attention in recent years. More and more evidences have shown that lncRNAs play regulatory roles in various biological activities and disease progression including drug resistance in cancer cells. Here, we observed lncRNA TUG1 was associated to the MTX resistant in colorectal cancer cells. Firstly, quantitative analysis indicated that TUG1 was significantly increased in tumors which were resistant to