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| Research Title | Functional specific roles of <i>usp14</i> in Cholangiocarcinoma cell line using proteomic techniques. |
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This research aimed to study 1) function of *usp14* gene after be knockout, consequence to other proteins in cell lines (M213 and KKU100) of cholangiocarcinoma cells and 2) comparison protein patterns in cell lines after the gene was knockout. RNAi. *Ubiquitin- Specific Protease 14* gene inhibition by RNA interference (RNAi) technique. In this study, the oligoduplex RNAi was designed and used for transfection to cell lines of cholangiocarcinoma cells compared with RNAi negative control in 24 hours. Gene expression (protein level) was then studied using Mass spectrometry based proteomics. The results showed that the highest protein changed in M213 cell line was unnamed protein product (Accession no. 32097) -- 5.19 times. Meanwhile, Histone H2A.2 (Accession no. 31979) was lesser than normal 6.33 times. Nevertheless, Ubiquitin specific protease 14 (USP14) plays role to control the length of Ubiquitin, which is the internal cell controller. This study provided information of medical application.