RESEARCH NOTE

SMALL RNA INTERFERENCE INHIBITION OF UBIQUITIN-SPECIFIC PROTEASE 14 GENE EXPRESSION IN INTRAHEPATIC CHOLANGIOCARCINOMA PRIMARY CELLS

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Abstract. Studies on genomic instabilities of intrahepatic cholangiocarcinoma (ICC) from Thai patients have shown 52% variations in a specific region of ubiquitin-specific protease 14 gene (*USP14*) located on 18p11.32. Inhibition of *USP14* expression in three different primary cells cultured from resected ICC tissues by transfecting with double-strand RNA interference targeting exon 16 region of *USP14* mRNA resulted in 6-50% reduction in mRNA levels, with cells with low *USP14* expression being more affected. These findings lend support to a potential in developing strategies against USP14 in ICC.

Keywords: intrahepatic cholangiocarcinoma, primary cell culture, RNAi, ubiquitin-specific protease 14

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