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# MicroRNA-584-5p Restrains the Viability of Lung Cancer Cells through Targeting DPY30 Directly

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**KEYWORDS** Cell Viability. Dpy-30 Histone Methyltransferase Complex Regulatory Subunit. Ki67. MicroRNA-584-5p. Proliferating Cell Nuclear Antigen

**ABSTRACT** Dysregulation of microRNAs (miRNAs) in lung cancer participates in lung cancer progression. This study was focused on investigating regulatory mechanism of miR-584-5p in lung cancer cells. Differential miR-584-5p and DPY30 expressions in samples of lung carcinoma were evaluated using ENCORI and GEPIA (http://gepia.cancer-pku.cn/). Using RT-qPCR, miR-584-5p was detected to be downregulated in lung cancer cells. MiR-584-5p overexpression inhibited H460 cell viability and suppressing Ki67 and PCNA protein expressions. Moreover, DPY30 was found to be targeted by miR-584-5p using luciferase reporter test, which was upregulated in lung cancer cells. Furthermore, overexpressed DPY30 restrained effects of miR-584-5p mimics, causing accelerated H460 cell viabilities and upregulated Ki67 and PCNA protein expressions. In H460 cells, miR-594-5p suppressed cell viability and inhibited protein expressions of Ki67 and PCNA through binding DPY30.