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## **ESM1 Restrains Taxol Resistance in Lung Cancer Cells via Interacting with KRT8**

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**ABSTRACT** Molecules attract increasing attention in lung cancer treatment. This present study has investigated regulatory effects of ESM1 on lung cancer cell progression. ESM1 was detected to be upregulated in lung cancer tissue samples and cell lines using RT-qPCR. Thereafter, results of CCK-8, transwell and scratch test indicated that ESM1 upregulation facilitated A549 cell viabilities, invasiveness, and migration while ESM1 suppression hampered SK-MES-1 cell viabilities, migration, and invasiveness. Moreover, ESM1 upregulation facilitated A549 cell viabilities, suppressed apoptosis and accelerated EMT after Taxol treatment. However, ESM1 downregulation inhibited Taxol-treated lung cancer cell viabilities, elevated apoptosis and restrained EMT. Furthermore, overexpression of ESM1 upregulated KRT8 expressions. KRT8 upregulation also accelerated Taxol-treated lung cancer cell viabilities and inhibited apoptosis while KRT8 downregulation caused opposite results.