**lncRNA JPX/miR-33a-5p/Twist1 axis regulates tumorigenesis and metastasis of lung cancer by activating Wnt/β-catenin signaling**

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**Supplementary Information**

**Figure S1 Knockdown and overexpression of JPX in lung cancer cells.**

**Figure S2 Knockdown of CTNNB1 in lung cancer cells.**

**Figure S3 Knockdown of Twist1 in lung cancer cells.**



**Figure S1 Knockdown and overexpression of JPX in lung cancer cells. A**)RT-qPCR analysis of relative JPX expression after transfection of JPX siRNA (si-JPX) and the corresponding controls (si-NC) in SPC-A-1 and NCI-H1299 cells. **B**)RT-qPCR analysis of the relative JPX expression after transfection of JPX overexpressing plasmid (pcDNA3.1-JPX) and the corresponding empty plasmid (pcDNA3.1) in SPC-A-1 and NCI-H1299 cells. \*\*\**P* < 0.001.



**Figure S2 Knockdown of CTNNB1 in lung cancer cells. A**)RT-qPCR analysis of relative CTNNB1 expression after transfection of CTNNB1 siRNA (si- CTNNB1) and the corresponding controls (si-NC) in SPC-A-1 and NCI-H1299 cells. **B**)Western blot analysis of β-catenin protein in SPC-A1 and NCI-H1299 cells transfected with control siRNA (si-NC) and siRNA to CTNNB1 (si- CTNNB1#1, si- CTNNB1#2).



**Figure S3 Knockdown of Twist1 in lung cancer cells.** Western blot analysis of Twist1 protein in SPC-A1 (**A**) and NCI-H1299 (**B**) cells transfected with control siRNA (si-NC) and siRNA to Twist1 (si-Twist1#1, si-Twist1#2, si-Twist1#3, si-Twist1#4).