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PUF60 promotes cell cycle and lung cancer progression by regulating alternative splicing of CDC25C

Graphical abstract



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In brief

Xu et al. identify the splicing factor PUF60 as a cell cycle regulator that promotes lung cancer development and progression. *PUF60* depletion strongly inhibits mitotic cell cycle progression, cell proliferation, and tumor development of lung cancer, which is attributed by alternative splicing changes of cell cycle genes, particularly *CDC25C*.

Highlights

- PUF60 acts as an oncogenic splicing factor and cell cycle regulator in lung cancer
- PUF60 promotes lung cancer progression by regulating alternative splicing of mitotic genes
- *PUF60* depletion inhibits lung tumor development and reduces exon 3 inclusion in *CDC25C*
- Exon 3 inclusion in *CDC25C* is critical for lung cancer cell proliferation



