

Kholle du vendredi 24 Mai - Métabolisme des cellules et cancer

Dans ce sujet, on s'intéresse à l'implication de HSP60, une protéine chaperone mitochondriale impliquée dans la protéostase des mitochondries, dans les carcinomes rénaux. [1],

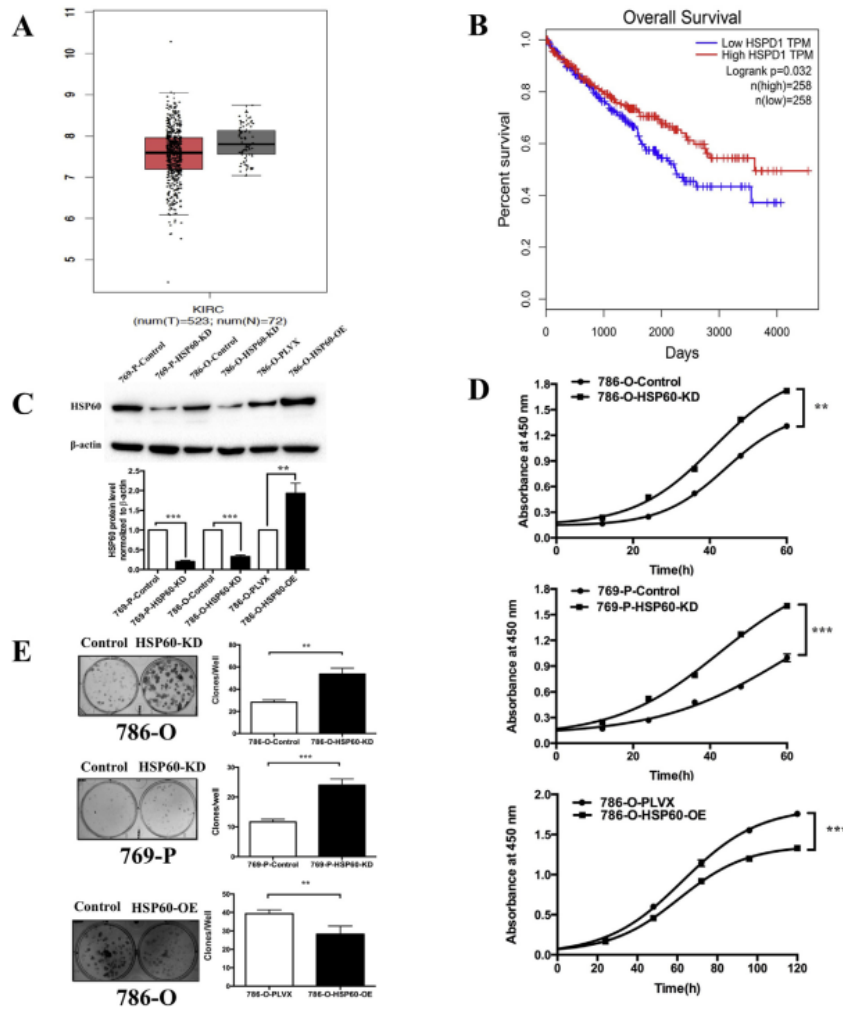


Fig. 1. Low expression of HSP60 promotes growth of ccRCC cells.

(A) Analysis of the transcriptome datasets of kidney renal clear cell carcinoma tissue and kidney normal tissue in TCGA show the mean mRNA levels of HSP60. (B) The overall survival rates of patients with low and high HSP60 expression. (C) Representative western blotting results confirm that the expression of HSP60 was decreased in 786-O cells and 769-P cells and that HSP60 was overexpressed in 769-P cells, and the bar chart beside shows the quantitation results. (D) Knockdown of HSP60 in 786-O and 769-P increased the growth rate of cells, while its overexpression in 786-O cells decreased the growth rate of cells; cell growth was detected using the CCK-8 kit. (E) Representative images of colony forming assay of HSP60-KD 786-O cells and 769-P cells and HSP60-overexpression 786-O cells, and the bar chart below shows the results of quantitative analysis of the clone numbers. ***p < 0.001; **p < 0.01; (mean \pm SD, n = 3).

References

- [1] Ruifang Teng, Zongyuan Liu, Haiping Tang, Wenhao Zhang, Yuling Chen, Renhua Xu, Liang Chen, Jiangping Song, Xiaohui Liu, and Haiteng Deng. HSP60 silencing promotes Warburg-like phenotypes and switches the mitochondrial function from ATP production to biosynthesis in ccRCC cells. *Redox Biology*, 24:101218, June 2019.