

Cite this as: Zhibin YAN, Ying SHI, Runling YANG, Jijun XUE, Caiyun FU. ELABELA-derived peptide ELA13 attenuates kidney fibrosis by inhibiting the Smad and ERK signaling pathways[J]. Journal of Zhejiang University Science B, 2024, 25(4): 341-353.
<http://doi.org/10.1631/jzus.B2300033>

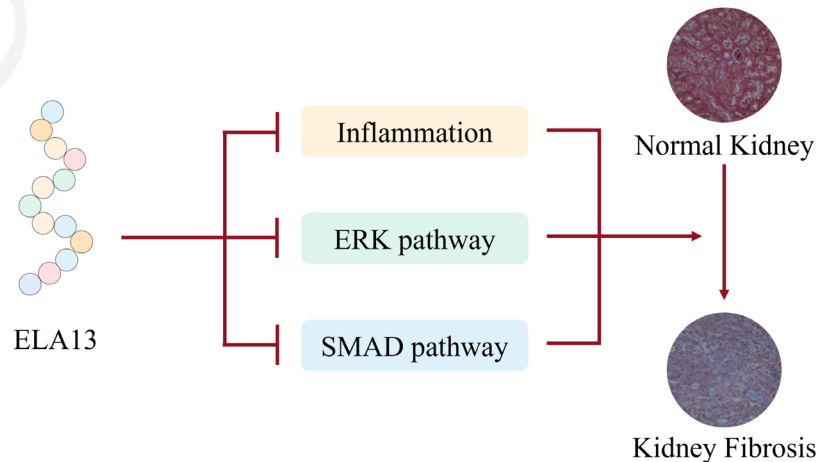
ELABELA-derived peptide ELA13 attenuates kidney fibrosis by inhibiting the Smad and ERK signaling pathways

Key words: ELA13, Kidney fibrosis, Inflammation, Smad, ERK

Research Summary

This article mainly focuses on the anti-renal fibrosis effect of ELA13, a conserved region of ELABELA in all vertebrates, and demonstrates that:

ELA13 attenuates kidney fibrosis in vivo and in vitro by inhibiting the Smad and ERK signaling pathways



Innovation points

A series of comprehensive Figures were generated to summarize the effect of ELA13 on kidney fibrosis.

Figure 1 | ELA13 down-regulated expression of renal fibrosis markers in TGF- β 1-induced NRK-52E cells.

Figure 2 | Interstitial fibrosis in UUO mice was ameliorated by subcutaneously injecting ELA13.

Figure 3 | ELA13 attenuated the expression of kidney fibrosis markers in UUO-induced mice.

Figure 4 | Effects of ELA13 on renal inflammation in UUO mice.

Figure 5 | ELA13 inhibited the Smad and ERK signaling pathways in vivo and in vitro.