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Targeting *WTAP* sensitizes hepatocellular carcinoma to sorafenib by inhibiting the ERK signaling pathway

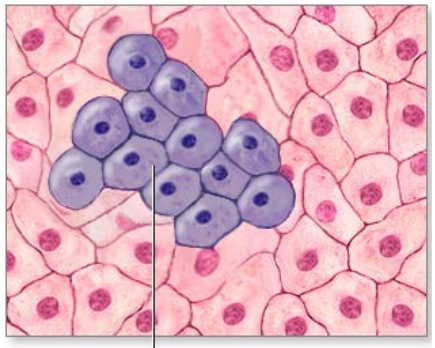
Key words: Wilms' tumor 1-associated protein (WTAP); Sorafenib resistance; Extracellular signal-regulated kinase (ERK) pathway; Hepatocellular carcinoma (HCC)

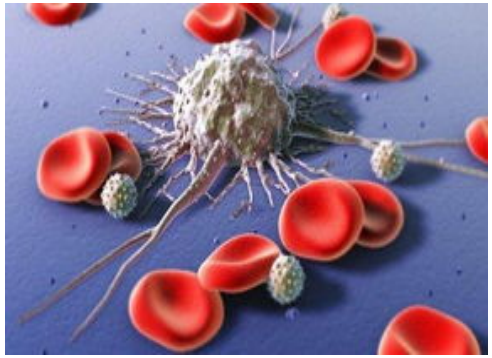
Research Summary

This study identifies WTAP as a key driver of sorafenib resistance in hepatocellular carcinoma (HCC) and proposes a novel combination therapy.:



- WTAP knockdown **enhances** sorafenib sensitivity in vitro and in vivo.
- WTAP promotes resistance by activating the **ERK** signaling pathway.
- Targeting WTAP **synergizes** with sorafenib to suppress tumor growth.





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Innovation points

- **Identification of WTAP as a novel critical regulator of sorafenib resistance in HCC.**

- **Integration of multi-modal approaches to delineate the WTAP-ERK resistance axis.**

- **Proposal of targeting WTAP as a promising strategy to overcome sorafenib resistance and enhance therapeutic efficacy in HCC.**

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