

MYOT PHASE SEPARATION REGULATES MIGRATION IN GASTRIC CANCER

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Poster

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Myotilin (MYOT), a protein containing intrinsically disordered regions, undergoes liquid-liquid phase separation and suppresses gastric cancer cell migration without affecting proliferation or apoptosis.

KEY POINTS

- MYOT was significantly downregulated in gastric cancer tissues compared to adjacent normal tissues, confirmed by RT-qPCR
- Overexpression of MYOT reduced gastric cancer cell migration but did not significantly affect cell proliferation or apoptosis
- MYOT undergoes liquid-liquid phase separation both in vitro and in vivo, demonstrated by FRAP analysis showing rapid fluorescence recovery in GFP-MYOT droplets and fusion behaviors of purified GFP-MYOT
- Purified GFP-MYOT does not directly promote actin polymerization
- The authors propose that MYOT may exert anti-tumor effects through LLPS-mediated mechanisms, offering a novel perspective on gastric cancer progression

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