

## Safeguarding VSMC Contractile Phenotype With In Situ circRNA-mediated Endothelial Olaratumab Engineering to Prevent Vascular Graft Stenosis

Advanced Materials

**IF 26.8**

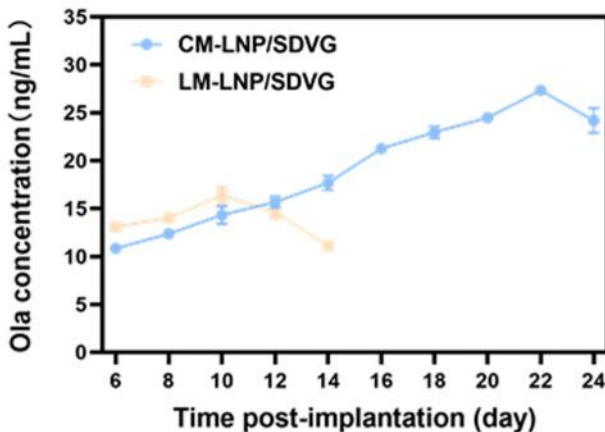
This study engineered circRNA-loaded lipid nanoparticles to functionalize small-diameter vascular grafts, reprogramming endothelial cells to secrete Olaratumab locally. This neutralizes PDGFR- $\alpha$ , preventing vascular smooth muscle cell phenotypic switching. In rat models, the approach enabled sustained antibody secretion for 24 days, accelerated endothelialization, and significantly reduced neointimal hyperplasia and graft calcification over six months, offering a powerful strategy to prevent vascular graft stenosis.



The AntibodySystem offers 1 product that contribute to this study.

### Cited Products

[KDD16101] Olaratumab ELISA Kit



Kinetic profiles of Ola concentration (ng/mL) in venous blood after SDVG implantation in rats

### Recommend Product

[DHD16101]

Research Grade Olaratumab



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