

SCALING VIRAL VECTOR PRODUCTION PROCESSES INTO HYPERFORMA DYNADRIVE SINGLE-USE BIOREACTORS

Paula Decaria, Thermo Fisher Scientific, USA
paula.decaria@thermofisher.com
Katelyn Parkinson, Thermo Fisher Scientific, USA

Key Words: Single-Use, DynaDrive, HEK293, Viral Vectors, Transfection, Lentivirus, AAV, Scale-up

As viral vector gene therapy processes reach the clinical and manufacturing stages, the ability to scale up those processes becomes crucial. In this study we demonstrate how the Thermo Scientific HyPerforma DynaDrive Single-Use Bioreactor (S.U.B.) offers optimal conditions for growth and transfection of Gibco Viral Production Cells (VPC1.0 and VPC2.0 cells), both derivatives of HEK 293F cells, utilizing the Gibco LV-MAX Production System and the Gibco AAV-MAX Production System. We also show scalability of cell growth from flask to HyPerforma DynaDrive S.U.B. in 50L, 500L, and 3000L sizes, offering particular guidance on key scale factors and experience to ensure process success.