



RoosterGEM™

A COMPLETE GENETIC ENGINEERING MEDIUM



Engineered from the ground up, RoosterGEM was built to radically increase transduction efficiency as part of a simplified, efficient, and economical hMSC-genetic engineering platform.

Traditionally, genetic modification of primary cells has low efficiency of transfer requiring increased MOI and viral agent costs, with significant time and resources allocated to media and process optimization. RoosterGEM is a highly efficient Complete Genetic Engineering Medium, formulated to increase transduction efficiency and reduce viral agent MOI and associated costs in one simplified, off-the-shelf medium.

When paired with RoosterBio's industrialized supply chain of high-volume Xeno-free hMSCs, ultra-productive expansion media, and cGMP-compatible processes – you enlist an end-to-end Genetic Engineering MSC-platform to streamline your transient or integrated gene transfer, de-risk your product & process development, and streamline your path to clinical translation.

PRODUCT FEATURES

Xeno-Free | Chemically Defined | Complete

Increased Transduction Efficiency

200 Standard Transductions

cGMP Compatible Processes

PRODUCT BENEFITS



Simplifies Transduction Workflow



Reduces Key LV & Raw Material Costs



Translation-Friendly Formats



Part of End-to-End Genetically Modified MSC Platform

WE PROVIDE PROCESS RECOMMENDATIONS.



RoosterBio®

Achieve Unparalleled Primary Cell Transduction Efficiency with RoosterGEM vs Standard Media Systems

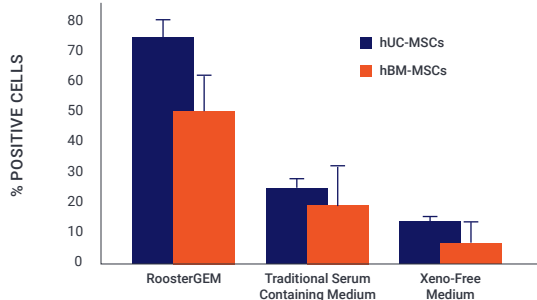


Fig 1

RoosterGEM Increases Transduction in hMSCs Derived from Multiple Tissue Sources

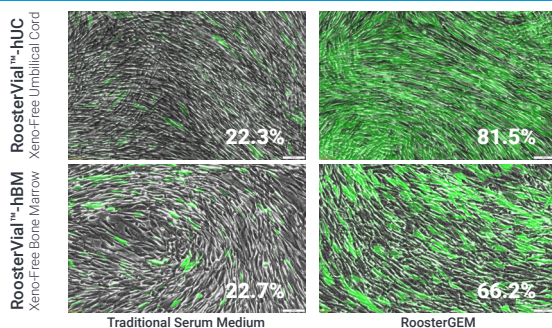


Fig 2

A COMPLETE SYSTEM FOR HIGHLY EFFICIENT hMSC TRANSDUCTION

PROVIDING UP TO **4-FOLD** INCREASE IN TRANSDUCTION EFFICIENCY

— WHILE —

REDUCING YOUR MEDIA & LV COSTS BY **>50%**

*results are donor and viral agent dependent

Fig 1. Lentiviral transduction efficiency at Low MOI (rLV.EF1, ZsGreen1-9, MOI = 2, Flash Therapeutics) was increased by 3 to 6-fold compared to traditional serum and xeno-free media system. This reduction in MOI dramatically reduced lentiviral associated costs.

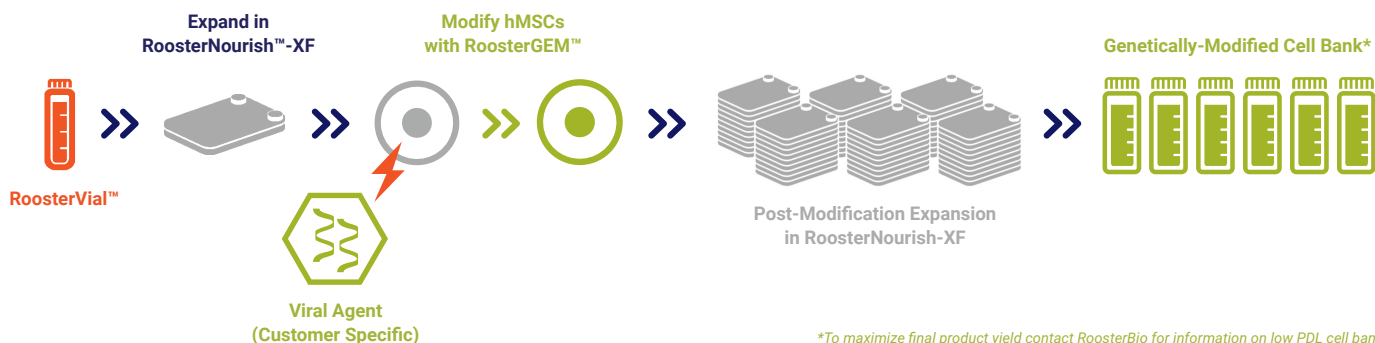
Fig 2. Increased transduction efficiencies were achieved in RoosterBio's Xeno-free RoosterVial™ hMSCs from multiple donors and tissue sources.

NEXT GENERATION COMPLETE TRANSDUCTION MEDIUM ENABLING EFFICIENT ENGINEERED hMSC PRODUCT & PROCESS DEVELOPMENT

Applications for RoosterGEM™

GENETIC ENGINEERING | CELL THERAPY | EXTRACELLULAR VESICLES

RoosterGEM is part of a complete system for hMSC genetic engineering and post-modification expansion to support pre-clinical product and engineered cell bank development.



Transduced hMSCs Maintained High % Positive Gene Expression While Maintaining Robust Expansion

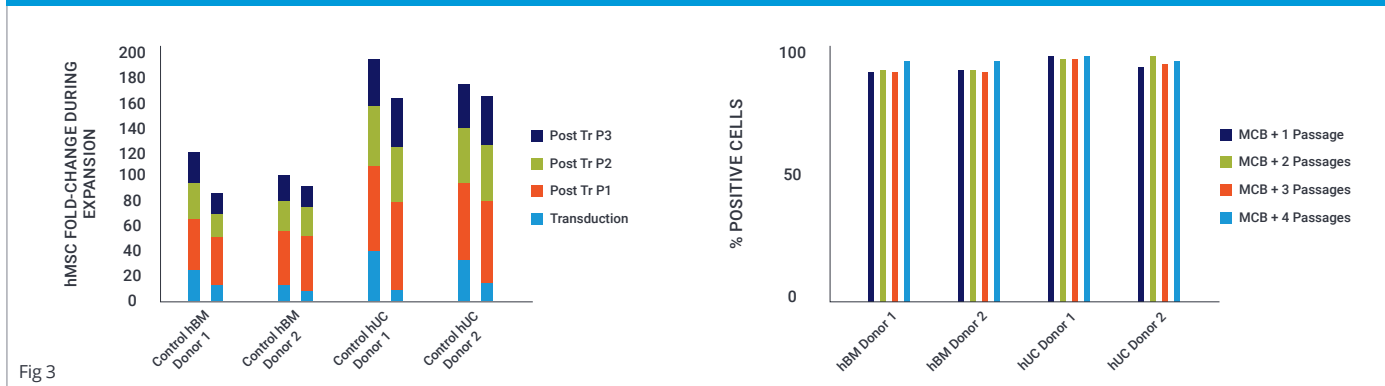


Fig 3: Lentiviral transduction efficiency at Low MOI (rLV.EF1.ZsGreen1-9, MOI = 4, Flash Therapeutics) resulted in >95% positive cell without a significant decrease in hMSC expansion performance over 3 passages. Key critical hMSC identity and functional performance attributes were also maintained (data not shown).

PRODUCT INFORMATION

PRODUCT	SKU / CATALOG #	UNIT SIZE	INTENDED USE
RoosterGEM	M40200	200 mL bottle of RoosterGEM	For Research Use Only



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RoosterBio, Inc is a privately held manufacturing platform technology company based in Frederick, MD focused on accelerating the development of a sustainable regenerative medicine industry, one customer at a time.