

UltraGRO™

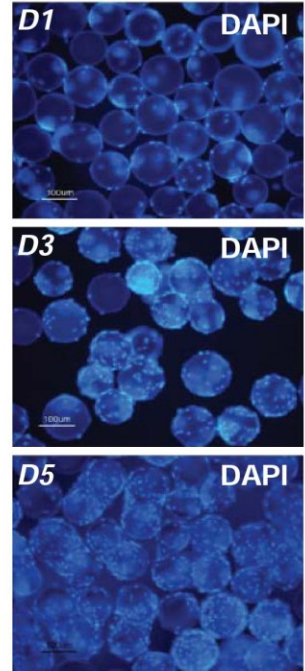


Excellent Supplement for 3D MSC Culture

- ✓ Ready scale-up to **3D platform** from 2D expansion in going from pre-clinic to clinical development and commercialization.
- ✓ Umbilical cord matrix MSCs were successfully expanded on plastic micro-carriers using **UltraGRO™** supplement medium: Day 1, 3, 5.
- ✓ **UltraGRO™** superior performance vs. FBS in this published 3D bioreactor experiment.



J Tissue Eng Regen Med, (2016)
doi: 10.1002/term.2200.



References for replacing FBS with hPL :

1. de Soure AM, Fernandes-Platzgummer A, Moreira F, Lilaia C, Liu SH, Ku CP, et al. Integrated culture platform based on a human platelet lysate supplement for the isolation and scalable manufacturing of umbilical cord matrix-derived mesenchymal stem/stromal cells. *J Tissue Eng Regen Med*; 2016. (in press)
2. Heathman TR, Stolzing A, Fabian C, Rafiq QA, Coopman K, Nienow AW, et al. Scalability and process transfer of mesenchymal stromal cell production from monolayer to microcarrier culture using human platelet lysate. *Cytotherapy*; 18:523-535.

UltraGRO™ Products Designed to Meet Your Needs

Application	Recommend product
For R&D / Clinical applications where you can use heparin in cell culture.	UltraGRO™
For R&D / Clinical applications where a fibrinogen-depleted hPL is needed.	UltraGRO™-Advanced
For R&D / Clinical use where 100% xeno-free, fibrinogen-depleted hPL is needed.	UltraGRO™-PURE



UltraGRO™ products are manufactured from human platelets sourced from FDA-licensed blood centers to provide you with a safe, consistent, high performance supplement.

Product	Grade	Heparin use	Volume (ml)
UltraGRO™	Research	Required	50
	GMP		100
UltraGRO™-Advanced	Research	Not required	50
	GMP		100
UltraGRO™-PURE	Research	Not required	50
	GMP		100

For more information visit:

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