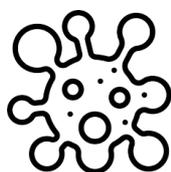


BIOMIMESYS® Adipose Tissue

BIOMIMESYS® is a unique groundbreaking 3D cell culture technology which associates the behavior of a solid scaffold and of a hydrogel. It provides a cell culture microenvironment reproducing all aspects of human tissues, including matrix architecture, cellular organization, cell-cell and cell-matrix interactions. Depending on the organ, extracellular matrix components and their proportions may vary, allowing a more or less dense and compact cellular environment (different Elastic Moduli, porosities).

BIOMIMESYS® matrices are made of Hyaluronic Acid (HA), the main glycosaminoglycan (GAG) of the ECM, collagens and adhesion proteins. Our patented manufacturing process allows to preserve the natural properties of HA and therefore synthesizing proprietary Hydroscaffold™. Tuning the composition of BIOMIMESYS® matrix allows to mimic the cellular microenvironment of any organ or tissue of interest.



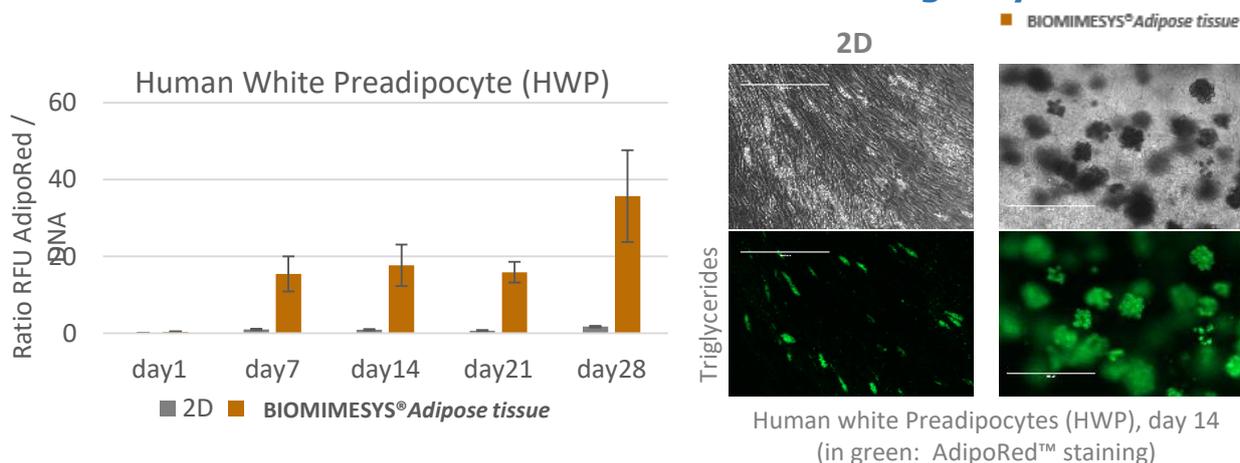
HA + RGDS
Collagen I
Collagen VI

Elastic Modulus:
0.5 kPa

Cells already tested

Primary human cells:
Human White Adipocytes (Subcutaneous)
Cell lines:
3T3-L1 mouse preadipocytes
3T3-F442A mouse preadipocytes
iPSC-derived human adipocytes

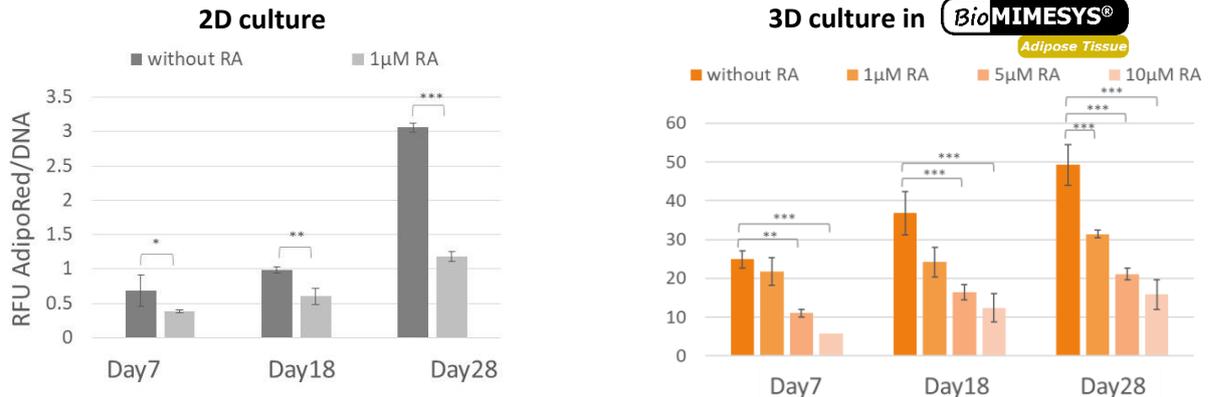
For a better differentiation and cell longevity



BIOMIMESYS® Adipose Tissue is dedicated to the culture of adipocytes: compared to 2D culture, primary human pre-adipocytes in BIOMIMESYS® Adipose Tissue (3D) showed optimal differentiation into adipocytes, and their functionality (such as lipid storage in a single large vacuole) was maintained until 28 days!

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For a better *in vitro/in vivo* correlation



Two-ways ANOVA statistics with Tukey post-hoc ; * : $p < 0,05$; ** : $p < 0,01$; *** : $p < 0,001$

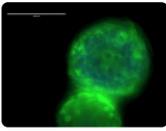
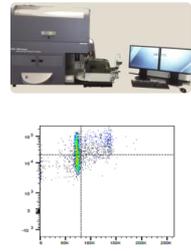
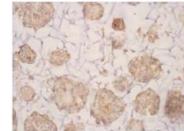
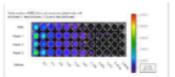
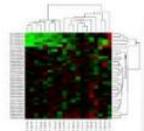
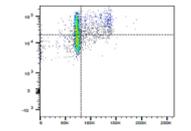
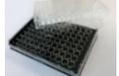
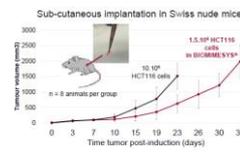
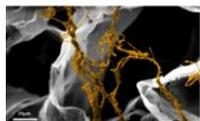
By using an adipose tissue-specific ECM with BIOMIMESYS® triglyceride accumulation was higher compared to 2D culture, while the inhibition of lipogenesis by retinoic acid (RA) was reduced, reflecting at best the *in vivo* situation.

96-well microplate

Ordering Information

	Product Number	Product Name	Qty/Bag	Qty/Case
	BIO_ADI_96_24_black	BIOMIMESYS Adipose tissue 96-well Black/Clear flat Bottom microplate with 24 hydrocaffolds	1	1
	BIO_ADI_96_96_black	BIOMIMESYS Adipose tissue 96-well Black/Clear flat Bottom microplate with 96 hydrocaffolds	1	1
	BIO_ADI_96_24_transp	BIOMIMESYS Adipose tissue Clear 96-well plate with 24 hydrocaffolds	1	1
	BIO_ADI_96_96_transp	BIOMIMESYS Adipose tissue Clear 96-well plate with 96 hydrocaffolds	1	1
		Specific extracellular matrix components :RGDS, Galactosamine, Collagen free or with collagens (collagen I, CollagenIV, Collagen VI, ...) Specific Elastic modulus (150 Pa to 15 kPa) and porosity (20 to 200 µm) Specific Microplate format, Hydrocaffolds number		

Plates are supplied in a ready-to-use format with Hydrocaffolds™ already casted in wells.

TRANSLUCENT	POROUS	BIODEGRADABLE	SOLID	READY TO USE	REPRODUCIBLE
Microscopy Spectroscopic Plate Reader (OD, fluorescence, luminescence)	PCRs Western-Blot ELISA	Flow cytometry	Histology In Vivo grafting	Microplate format Long shelf-life	Chemically controlled Patented process WO2016166479A1 (PCT/FR2016/050863)
					
					
					

BIOMIMESYS® is compatible with all downstream analytical technologies.

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