CellScale biomaterials testing

MechanoCulture FX



The MechanoCulture product group allows

researchers to culture cells in a mechanically active environment. Configurations of these culture systems support single or parallel tests using a variety of flexible substrates and

The MechanoCulture FX can uniaxially stretch 16 wells while capturing images on an inverted microscope. The sterile single-use silicone plates have a thin transparent membrane that has similar optical properties to a glass coverslip.

scaffolds. On-board controllers enable PC-independent execution of user-defined motion protocols.

All MechanoCulture systems can be operated in an incubator environment. All cell-contacting components are made from autoclavable materials.



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The MechanoCulture FX can be programmed to run constant velocity or sinusoidal stretch patterns. Magnitudes, frequencies, rest periods, and cycle counts can all be specified in the software application and programmed to the device.

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	CellScale Biomat. Testing SW# 74051 Rev 1.0 Software Version 1.41 MechanoCulture Model T6	Mechano-Culture Copyright 2013					
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19 x 9 x 10 cm



1 kg

Possible applications are studying the effect of

mechanical stimulation on

- cell differentiation
- gene expression
- production of extracellular matrix
- chemical signaling
- cell alignment

Stimulation Mode	Uniaxial tension
Configuration	Cell monolayer
Culture area	16 wells, 8mm x 8mm
Maximum Strain	9.5%
Maximum Velocity	10 mm/s
Maximum Cycle Frequency	2 Hz
Loading capacity	30 N
Media volume/well	0.5 mL

CellScale biomaterials testing

CellScale Biomaterials Testing is the industry leader for precision biomaterial and mechanobiology test systems. Our products are being used at world-class academic and commercial organizations in over 30 countries around the globe.

Our mechanical test systems allow researchers to characterize the mechanical properties of biomaterials. Our mechanobiology technologies provide insights into the response of cells to mechanical stimulation.

CellScale's technologies are improving human health by helping researchers discover the causes of disease, improve medical treatments and devices, and advance regenerative medicine and other basic science research.

Visit our website or contact us to learn how our innovative products can help you achieve your research and development goals.

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