Scapova™

PVA Microcarriers for cell mass culture

kuraray

Development Concept

Microcarriers for regenerative medicine

SCAPOVA™ is Kuraray's PVA microcarriers.
SCAPOVA™ CL has collagen coated surface.
SCAPOVA™ CL can solve following issues in the manufacturing cells for regenerative medicine.

1
Obtain enough number of cells

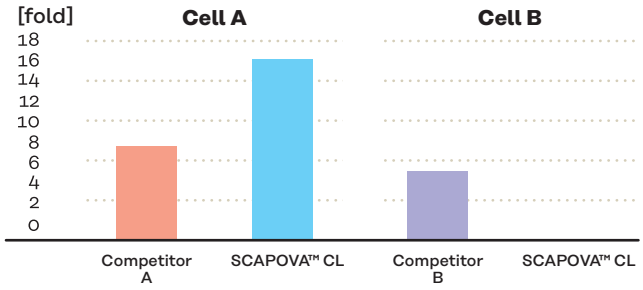
2
Assure medical-grade safety

Characteristics of SCAPOVA™ CL

1 High cell proliferation rate

SCAPOVA™ CL can be applied
to cultivate therapeutic cells like MSCs.

Human cells cultured on each microcarriers for 7days.
Each bar shows the fold of the initial cell number.

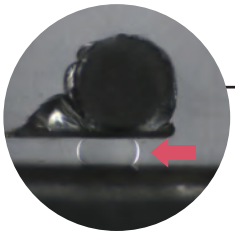


2 Quality management in accordance with medical standards

SCAPOVA™ CL are made from Kuraray's PVA※.
We conduct strict quality management.
And there is no risk of contamination.

※Polyvinyl Alcohol

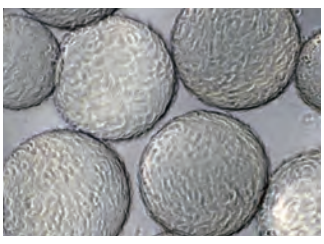
Safety test	Result
Cytotoxicity Genotoxicity Systemic acute toxicity Implantation test	Negative (Tested in accordance with ISO 10993.)
Leachable Extractable	Tested in accordance with BPOG guideline.



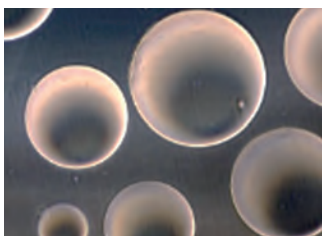
This image shows compression test of SCAPOVA™

3 Ease of handling

It is easy to harvest and observe cells
on SCAPOVA™ CL.
SCAPOVA™ CL improve efficiency of
mass cell production processes.



High transparency makes it easy
to observe cells by microscopy

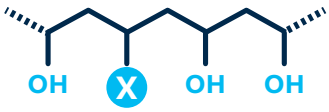


Cells are easily dettached from
SCAPOVA™ CL

Manufacturing Method of SCAPOVA™ CL

1

Polyvinyl Alcohol (PVA)
It is resin with high elasticity and solubility.
It also have high biocompatibility.



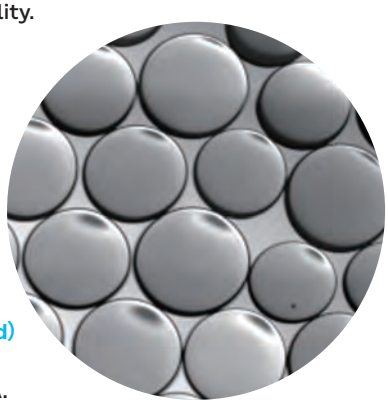
Partially modify the hydroxyl groups

2

3

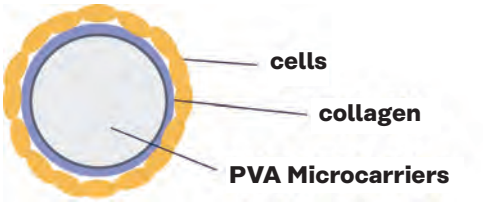
Ink
Solution of new modified PVA.

4



PVA Microcarriers(non-coated)
Micron-sized hydrogel beads
are made by cross-linking PVA.

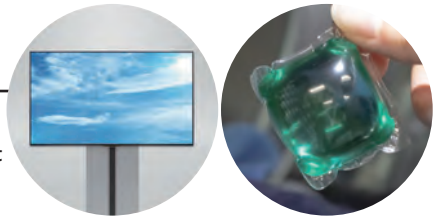
5



SCAPOVA™ CL
Collagen is coated on the surface
of the microcarriers to allow cells to adhere.

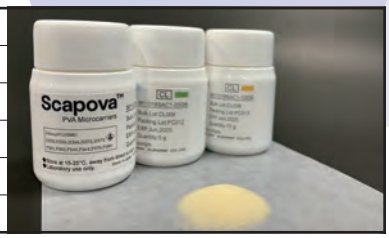
Reference : PVA is used in...

- Polarizing film in LCD
- Water-soluble films for detergent



Product Information

Outline date of product	Particle size (D50)	200～250μm
	Coating of the surface	Collagen
	Surface Area [/g dry weight]	2600cm²
	Swelling Factor (in PBS)	10
	Recommended amount [/ℓ for MSC]	1.54g
	Sterilization	Gamma irradiation.



※This product can be available only for research. Please contact us for clinical use.

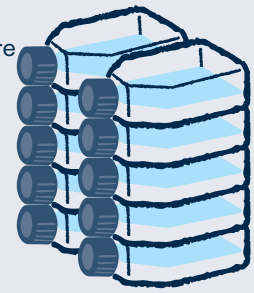
	Product name and quantity	Price	Product code
Price information	SCAPOVA™ CL 1g	$35.00	M11018SAC1-01GB
	SCAPOVA™ CL 5g	$175.00	M11018SAC1-05GB
	SCAPOVA™ CL 10g	$335.00	M11018SAC1-10GB

What is a microcarrier?

Microcarriers are micron-sized beads for cell culture scaffolds. cells attached to the beads surface and proliferate on the beads.

Cell culture using flasks

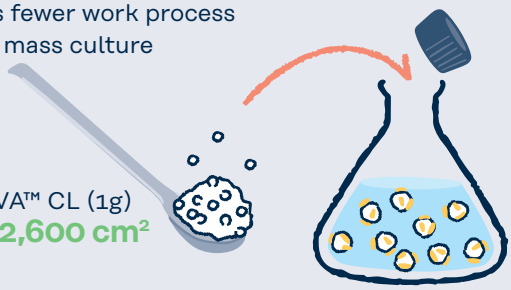
- Many flask take a lot of space.
- It takes lot of labor
- It doesn't suit for mass culture



T175 flasks(10 flasks)
about 1,750 cm²

Cell culture using microcarriers

- It saves space
- It takes fewer work process
- It suits mass culture



SCAPOVA™ CL (1g)
about 2,600 cm²

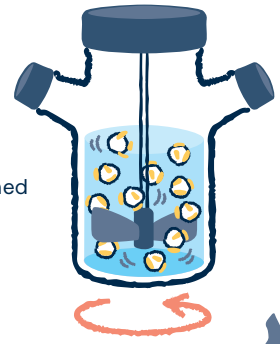
How to use SCAPOVA™

1 Input

Weigh SCAPOVA™ and put them into culture medium. Any containers, such as flasks and bioreactors, can be used.

2 Cell seeding

Seed cells and leave it for24 hours (agitate at determined speed).
After that, Agitate at suitable speed.

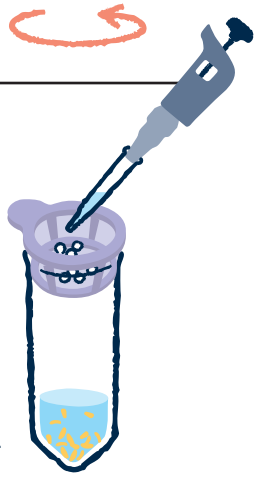


3 Medium exchange

After stopping agitation, SCAPOVA™ settle down within few minutes. Change half of the medium every 3 or 4days.

4 Cell harvesting

Detach cells from SCAPOVA™ with Trypsin/EDTA solution. Separate cells and SCAPOVA™ by cell strainer.



Culturing experience : hMSC, VERO cells, human fibroblasts, mouse fibroblasts

We heve application notes with details on how to use the microcarriers.

Contact us

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