

Introduction Video



An Innovative Spheroid Culture Tool

WELLBAG-S500



Closed
system

A large number
of uniform size
Spheroids

Easy recovery
of spheroids

For the Research and Development,
Manufacturing of Cell Therapeutics



Toyo Seikan Group Holdings, Ltd.

01 Culturing a large number of uniform size spheroids in a sterile enclosed environment

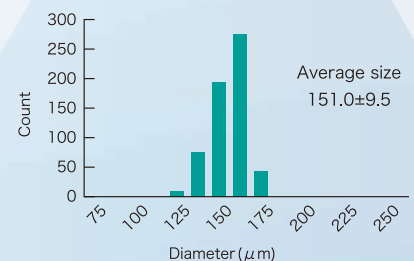
Reduce contamination risk by the closed bag system

$\Phi 500\mu\text{m} \times 18,000$ wells

On the bottom surface of the bag, a large number of microwells are processed which are treated with the low-cell-adhesive substance



A large number of uniform size spheroids are cultured



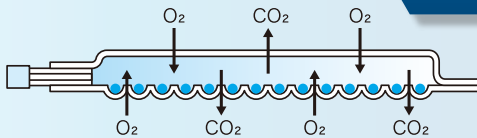
High uniformity of spheroids

18,000 of uniform size spheroids are cultured simultaneously

02

Provision of suitable spheroid culture condition

Efficient gas exchange using high gas permeable film



The well-gas-permeable film enables the supply of oxygen to cells and the discharge of carbon-dioxide accumulated in the bag

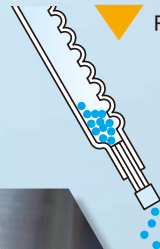
Easy and quick recovery of spheroids without pipetting



Turn the bag upside down



Recovered with no damage



Spheroids are collected smoothly without any left trapped in the wells

Cytotoxicity test	Confirmed
Leachable test	Confirmed
Endotoxin test	Confirmed
Sterility	Radiation Sterilization

The high safety levels required for the cell culture bag is achieved

High safety levels are based on Pharmacopoeia of Japan



Reference : "Microwell bag culture for large-scale production of homogeneous islet-like clutures", Scientific Reports 12, Article number : 5221(2022)

03 Applicable to various cell culture situations

Ease of usage with a bag holder

Observation of cells

Larger size of WELLBAG is under development

Regular Bag : 50 cm²
Large Size : 1,000 cm²

650 thousands of spheroids can be formed in uniform size

Setting a bag in a holder

The presence of a holder prevents spheroids movement between wells when carrying the bag around

The state of cell culture by WELLBAGs using holders

Bubbles in the bag are removed easily by the incubation

Can be used in a CO₂ incubator

Note : The use of WELLBAG to insulin-producing cells including pancreatic precursor cells may be restricted depending on the intended use. So, please contact the manufacturer or a distributor in advance for this use.



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※ The information in this leaflet is subject to change without notice.

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