



SPL ***Cell Culture Ware***

Cell Culture Flask
Cell Culture Dish
Cell Culture Plate
SPLInsert™

Introduction to SPL Cell Culture Wares

Overview

SPL Life Sciences provides customers with a wide range of high quality cell culture products, from basic cell culture vessels to more advanced platforms and accessories.

All SPL cell culture products meet international guidelines/regulations, such as ISO (International Organization for Standardization), ANSI (American National Standard Institute) and USP (United States Pharmacopeia, class VI). Polymer resins used to manufacture all products have followed international guidelines such as CONEG, SARA, Reach EC/1907/2006, RoHS 2002/95/EC. Biological tests (endotoxin, cytotoxicity, DNase/RNase, Human DNA) as well as cell attachment tests are regularly performed for quality control.

Surface Treatment

SPL Life Sciences offers a great diversity in surface conditions suitable for optimal cell growth. Surface treatment of SPL Cell Culture Ware is **NOT** a protein coating, but a physical modification by polarity change of the surface. (Refer to the SPLCoat™ brochure for an introduction to protein coated culture ware.)

Surface Treatment	+	Optimal surface that facilitates cell attachment and growth, perfectly got most applications involving adherent cell culture.
	-	Naturally charged and relatively hydrophobic compared to treated surface, better for suspension cell culture.

Cap Type

SPL Cell Culture Flask has two types of cap to provide optimal conditions for a variety of applications

Cap Type	Filter	Filter Cap enables continuous gas exchange and effectively blocks external microorganisms.	
	Plug	Plug Cap completely isolates the flask from the outside to shield it from contamination. Sometimes, it is useful for transporting culture medium containing microorganisms. (If the Plug Cap is completely closed and placed in the incubator, the flask may be damaged due to expansion of the internal gas.)	

External Grip

SPL Cell Culture Dish has external grip for preventing slipping and enabling easy distinction.

External Grip	+	
	-	

Cell Culture Flask

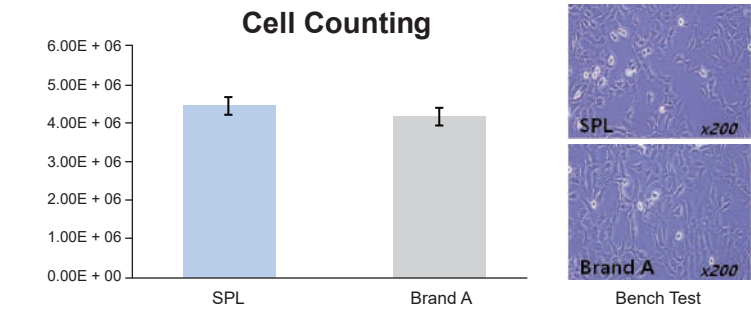
Experience the extended convenience with SPL flask

Description

Cell Culture Flasks of SPL Life Sciences are ergonomically designed for easy handling, while achieving minimal contamination during cell culture. Short, wide and angled neck design enables easy access of serological pipettes and cell scrapers. Flasks are divided into 6 types, depending on the culture scale and the cap type. Cell growth area for T25, T75 and T175 are 25 cm², 75 cm², and 175 cm², respectively. Each flask can be provided with plug or filter caps.

Features

- ◆ Ergonomic design to facilitate easy handling and minimize contamination
- ◆ Short & wide neck with angled design allow easy access excellent stackability
- ◆ Cell growth area ranging from 25 cm², 75 cm², 175 cm²
- ◆ Venting position for 175 cm² plug cap model (Cat. No. 72175, 73175)
- ◆ Non-treated models (for suspension culture) are provided with white caps



293A (Human Kidney Epithelial), 6 x 10⁵ cells / flask seeding density, DMEM (10% FBS, 1% Penicillin-Streptomycin), 5% CO₂, 37 °C, 72 hours incubation

- ◆ Non-pyrogenic
- ◆ Non-cytotoxic
- ◆ DNase / RNase-free
- ◆ Human DNA-free

Cat. No.	Material (Body / Cap)	Cap Type	Growth Area (cm ²)	Working Vol. (ml)	Total Vol. (ml)	Surface Treatment	Sterile	Packaging
Cell Culture Flask 25 cm ²								
70025	PS / HDPE	Filter	25.00	7.00	60.00	+	+	5 / 200
70125	PS / HDPE	Plug	25.00	7.00	60.00	+	+	5 / 200
70325	PS / HDPE	Filter	25.00	40.00	60.00	-	+	5 / 200
70225	PS / HDPE	Plug	25.00	40.00	60.00	-	+	5 / 200
Cell Culture Flask 75 cm ²								
70075	PS / HDPE	Filter	75.00	25.00	250.00	+	+	5 / 100
70175	PS / HDPE	Plug	75.00	25.00	250.00	+	+	5 / 100
70375	PS / HDPE	Filter	75.00	170.00	250.00	-	+	5 / 100
70275	PS / HDPE	Plug	75.00	170.00	250.00	-	+	5 / 100
Cell Culture Flask 125 cm ²								
71175	PS / HDPE	Filter	175.00	50.00	650.00	+	+	5 / 40
72175	PS / HDPE	Plug	175.00	50.00	650.00	+	+	5 / 40
74175	PS / HDPE	Filter	175.00	450.00	650.00	-	+	5 / 40
73175	PS / HDPE	Plug	175.00	450.00	650.00	-	+	5 / 40

Cell Culture Dish

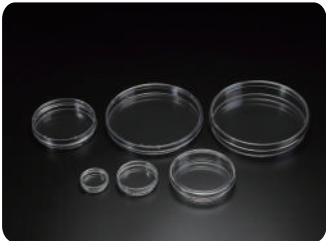
Best solution for your culture

Description

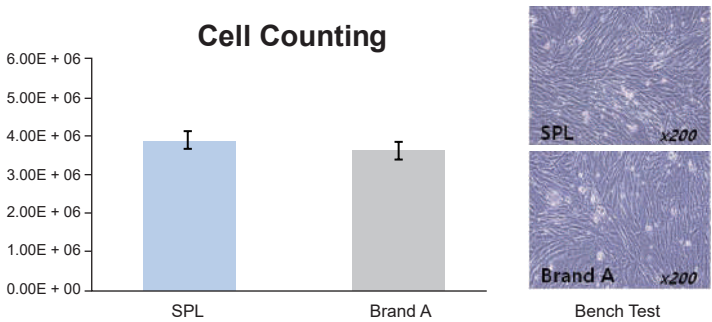
SPL Life Sciences provides a wide range of Cell Culture Dishes with highest quality. All of the Cell Culture Dishes are produced with optically clear high quality polymers for microscopy.

Features

- ◆ Unique lid inner design for effective gas exchange
- ◆ External grip for better handling (Cat. No. 11035, 11060, 20035, 20060, 20101)
- ◆ Excellent stackability
- ◆ Compliant with USP guideline (USP class VI tested)



- ◆ Non-pyrogenic
- ◆ Non-cytotoxic
- ◆ DNase / RNase-free
- ◆ Human DNA-free



BHK-21 (Hamster Kidney Fibroblast), 2×10^5 cells / dish seeding density, DMEM (10% FBS, 1% Penicillin-Streptomycin), 5% CO₂, 37°C, 72 hours incubation

Cat. No.	Dish Style d x h (mm)	Internal Dimensions d x h (mm)	Growth Area (cm ²)	Working Vol. (ml)	External Grip	Surface Treatment	Sterile	Packaging
11035	35.00 x 10.00	35.00 x 9.60	9.40	3.00	+	-	+	10 / 500
11060	60.00 x 15.00	52.80 x 12.80	21.50	5.00	+	-	+	10 / 500
11090	90.00 x 15.00	85.73 x 12.60	57.50	12.50	-	-	+	10 / 500
11150	150.00 x 20.00	138.57 x 15.40	148.00	35.00	-	-	+	10 / 120
11151	150.00 x 25.00	138.57 x 23.30	148.00	35.00	-	-	+	10 / 120
20035	35.00 x 10.00	35.00 x 9.60	9.40	3.00	+	+	+	10 / 500
20060	60.00 x 15.00	52.80 x 12.80	21.50	5.00	+	+	+	10 / 500
20100	90.00 x 20.00	86.26 x 17.70	57.50	12.50	-	+	+	10 / 200
20101	90.00 x 20.00	87.48 x 16.40	57.50	12.50	+	+	+	10 / 200
20150	150.00 x 25.00	138.57 x 23.30	148.00	35.00	-	+	+	10 / 120
20151	150.00 x 20.00	138.57 x 15.40	148.00	35.00	-	+	+	10 / 120

Cell Culture Plate

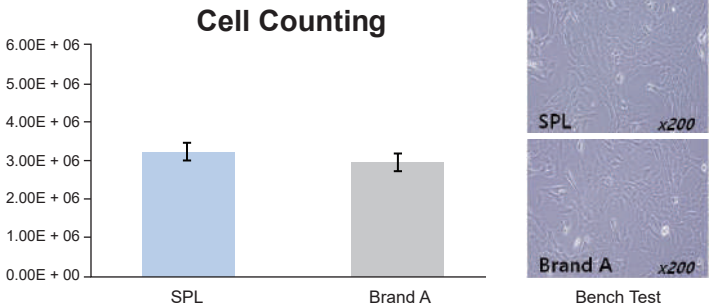
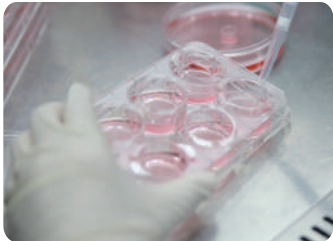
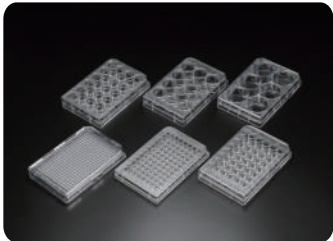
Designed for more safe, efficient and variety test

Description

Cell Culture Plates are widely used for handling multiple samples in a single experiment during culture. SPL Life Sciences provides a wide range of multi-well plates from 6well to 384well plates for cell culturing purposes.

Features

- ◆ Designed to prevent cross contamination
- ◆ Effective gas exchange lid inner design
- ◆ Alphanumeric labeling
- ◆ Homogeneous cell culture
- ◆ 2 bottom types for 96well plates: Flat / Round
- ◆ HTS (High-Throughput Screening) compatible for 96well and 384well plates
- ◆ Compliant with USP guideline (USP class VI tested)
- ◆ Compliant with ANSI guideline



C2C12 (Mouse Muscle Myoblast), 1×10^5 cells / well seeding density, DMEM (10% FBS, 1% Penicillin-Streptomycin), 5% CO₂, 37°C, 72 hours incubation

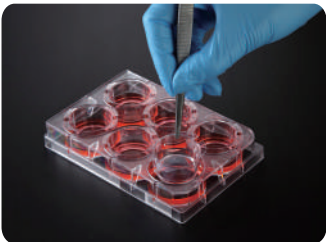
- ◆ Non-pyrogenic
- ◆ Non-cytotoxic
- ◆ DNase / RNase-free
- ◆ Human DNA-free

Cat. No.	Material	External Dimensions w x l x h (mm)	Bottom Type	Well Dimensions d x h (mm)	Growth Area (cm ²)	Working Vol. (ml)	Surface Treatment	Sterile	Packaging
Cell Culture Plate 6well									
30006	PS	85.40 x 127.60 x 20.20	Flat	35.00 x 17.50	9.60	3.00	+	+	1 / 50
31006	PS	85.40 x 127.60 x 20.20	Flat	35.00 x 17.50	9.60	3.00	-	-	1 / 50
32006	PS	85.40 x 127.60 x 20.20	Flat	35.00 x 17.50	9.60	3.00	-	+	1 / 50
Cell Culture Plate 12well									
30012	PS	85.40 x 127.60 x 20.20	Flat	21.90 x 17.50	3.80	2.00	+	+	1 / 50
31012	PS	85.40 x 127.60 x 20.20	Flat	21.90 x 17.50	3.80	2.00	-	-	1 / 50
32012	PS	85.40 x 127.60 x 20.20	Flat	21.90 x 17.50	3.80	2.00	-	+	1 / 50
Cell Culture Plate 24well									
30024	PS	85.40 x 127.60 x 20.20	Flat	15.50 x 17.50	1.90	1.00	+	+	1 / 50
31024	PS	85.40 x 127.60 x 20.20	Flat	15.50 x 17.50	1.90	1.00	-	-	1 / 50
32024	PS	85.40 x 127.60 x 20.20	Flat	15.50 x 17.50	1.90	1.00	-	+	1 / 50
Cell Culture Plate 48well									
30048	PS	85.40 x 127.60 x 20.20	Flat	9.75 x 17.50	0.75	0.50	+	+	1 / 50
31048	PS	85.40 x 127.60 x 20.20	Flat	9.75 x 17.50	0.75	0.50	-	-	1 / 50
32048	PS	85.40 x 127.60 x 20.20	Flat	9.75 x 17.50	0.75	0.50	-	+	1 / 50
Cell Culture Plate 96well									
30096	PS	85.40 x 127.60 x 14.40	Flat	6.50 x 10.80	0.33	0.20	+	+	1 / 50
31096	PS	85.40 x 127.60 x 14.40	Flat	6.50 x 10.80	0.33	0.20	-	-	10 / 100
32096	PS	85.40 x 127.60 x 14.40	Flat	6.50 x 10.80	0.33	0.20	-	+	1 / 50
34096	PS	85.40 x 127.60 x 14.40	Round	6.92 x 12.00	0.66	0.20	+	+	1 / 50
34196	PS	85.40 x 127.60 x 14.40	Round	6.92 x 12.00	0.66	0.20	-	-	10 / 100
34296	PS	85.40 x 127.60 x 14.40	Round	6.92 x 12.00	0.66	0.20	-	+	1 / 50
Cell Culture Plate 384well									
37384	PS	85.40 x 127.60 x 14.40	Flat	3.00 x 11.50	0.07	0.10	+	+	10 / 40
38384	PS	85.40 x 127.60 x 14.40	Flat	3.00 x 11.50	0.07	0.10	-	+	10 / 40

SPLInsert™

Improved way to handle your cells

SPLInsert™ products closely mimic *in vivo* environment, providing improved attachment, growth and differentiation of various cell types. With their permeable property, inserts are convenient and effective tool for diverse research areas such as transportation and invasion studies. Specially selected track-etched membranes of three different pore sizes (0.4, 3.0 and 8.0 μm) are used for SPLInsert™ products. Track-etched membranes ensure precise pore size distribution and consistent pore density, providing well-controlled experimental parameters.



SPLInsert™ features

Surface treatment: + (Refer to the page 1.)
Membrane material: PC, PET

Membrane features

	PC	PET
Characteristic	Low background	High transparency High chemical resistance
Experiment	Organic fixative Stain	Cell viability Monolayer formation

Optical Properties of Membranes



Opaque



Translucent



Transparent

Pore density (Number of pores present per unit area):
Opaque > Translucent > Transparent
The higher the pore density, the better cell culture

Applicable experiments

Pore size	Applications
0.4 μm	- ADME/Tox(compound transport and permeability through cell barrier; toxicity assays) - Co-culture
3.0 μm	- Cell migration / invasion - Blood cell chemotaxis - Transendothelial migration
8.0 μm	- Cell migration / invasion - Blood cell chemotaxis - Transendothelial migration

SPLInsert™ Hanging

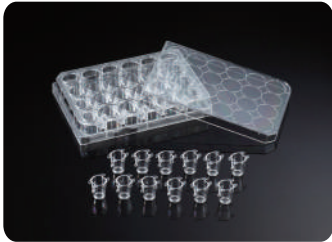
Description

SPLInsert™ Hanging keeps certain distance between the membrane and the well bottom to prevent potential damages during handling, suitable for co-culture and permeability assays.

Features

- ◆ Distance from membrane to the bottom of the well:
6well Insert 1.2 mm, 24well Insert 1.3 mm
- ◆ Nominal membrane thickness: 10 - 23 µm
- ◆ Frame material: Polystyrene (PS)
- ◆ Packed in cell culture-treated cell culture plates

Cat. No.	Membrane Material	Multiwell Plate Type	Membrane Pore Size (µm)	Membrane Diameter (mm)	Growth Area (cm²)	Working Vol. (ml)	Optical Properties	Sterile	Packaging
35006	PC	6well	0.40	24.00	4.52	1.50 - 2.50	Opaque	+	6 / 24
35106	PC	6well	3.00	24.00	4.52	1.50 - 2.50	Translucent	+	6 / 24
35206	PC	6well	8.00	24.00	4.52	1.50 - 2.50	Translucent	+	6 / 24
35024	PC	24well	0.40	6.50	0.33	0.20 - 0.35	Opaque	+	12 / 48
35124	PC	24well	3.00	6.50	0.33	0.20 - 0.35	Translucent	+	12 / 48
35224	PC	24well	8.00	6.50	0.33	0.20 - 0.35	Translucent	+	12 / 48
36006	PET	6well	0.40	24.00	4.52	1.50 - 2.50	Opaque	+	6 / 24
36106	PET	6well	3.00	24.00	4.52	1.50 - 2.50	Translucent	+	6 / 24
36206	PET	6well	8.00	24.00	4.52	1.50 - 2.50	Translucent	+	6 / 24
36024	PET	24well	0.40	6.50	0.33	0.20 - 0.35	Opaque	+	12 / 48
36124	PET	24well	3.00	6.50	0.33	0.20 - 0.35	Translucent	+	12 / 48
36224	PET	24well	8.00	6.50	0.33	0.20 - 0.35	Translucent	+	12 / 48
37006	PET	6well	0.40	24.00	4.52	1.50 - 2.50	Transparent	+	6 / 24
37106	PET	6well	3.00	24.00	4.52	1.50 - 2.50	Transparent	+	6 / 24
37206	PET	6well	8.00	24.00	4.52	1.50 - 2.50	Transparent	+	6 / 24
37024	PET	24well	0.40	6.50	0.33	0.20 - 0.35	Transparent	+	12 / 48
37124	PET	24well	3.00	6.50	0.33	0.20 - 0.35	Transparent	+	12 / 48
37224	PET	24well	8.00	6.50	0.33	0.20 - 0.35	Transparent	+	12 / 48



- ◆ Non-pyrogenic
- ◆ Non-cytotoxic
- ◆ DNase / RNase-free
- ◆ Human DNA-free

SPLInsert™ Standing

Description

SPLInsert™ Standing is widely used for cell culture, for instance skin layer culture. The insert can be removed and transferred to other place for additional cell culture.

Features

- ◆ Distance from membrane to the bottom of the well:
6well Insert 0.91 mm, 24well Insert 0.85 mm
- ◆ Nominal membrane thickness: 10 - 23 µm
- ◆ Frame material: Polystyrene (PS)
- ◆ Packed in cell culture-treated cell culture plates



For more details



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