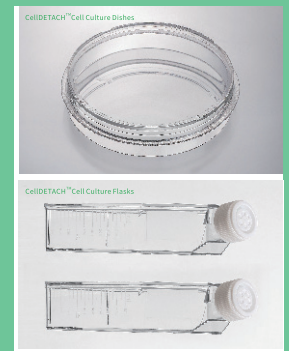
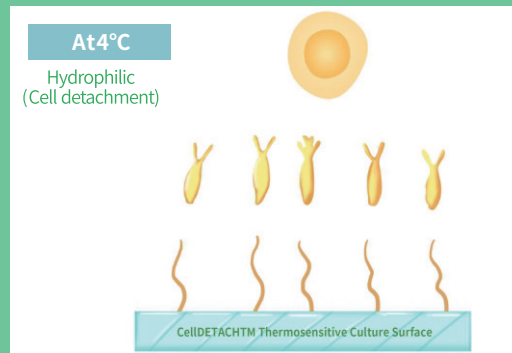
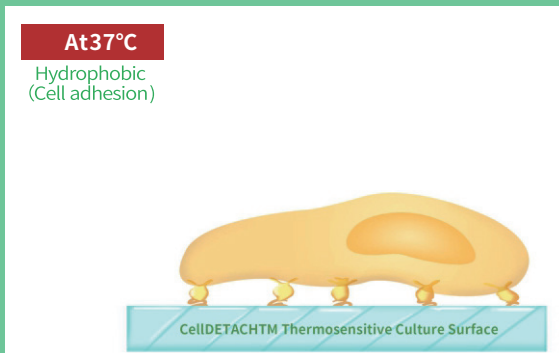


# CellDETACH™ Thermosensitive Cell Culture Surface

No trypsin, no scraper, temperature-induced harvesting of adherent cells

Using trypsin digestion or cell scraper to separate adherent cells will affect the expression of cell surface proteins, damage cell health and reduce cell viability.

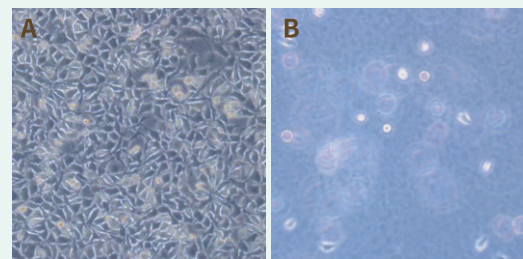
CellDETACH™ thermosensitive cell culture surface is coated by an even and unique nano-polymer. When the temperature of the culture is reduced from 37°C to 4°C, the thermosensitive surface gradually changes from slightly hydrophobic to hydrophilic, resulting in adherent cells harvest without trypsin involved. By using this gently method, avoid cell damaging by scraper or trypsin to preserve high viability and intact surface receptors and antigens of cells, to realize cell harvest without damage and continuous subculture procedure.



## Product Advantage

CellDETACH™ thermosensitive cell culture surface is specially designed by the R&D team of JET BIOFLL for cell passage, cell analysis and cell transplantation, which aims to help experimenters to harvest cells sheet, build 3D tissue models linked by normal cells and extracellular matrix, simplify cell culture and tissue engineering techniques, and minimize experimental manipulation time.

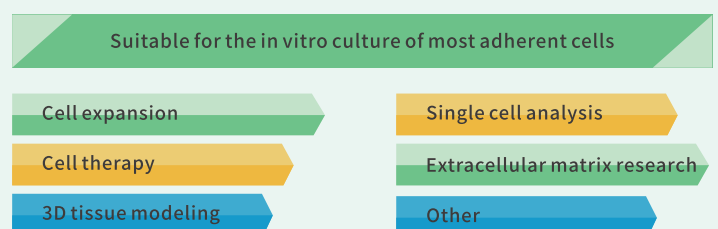
- National invention patent (patent number: ZL201510780506.3)
- Induce cell shedding simply by lowering the temperature, simple, fast and easy to operate
- No trypsin: preserve the intact cell surface proteins and markers
- No scraping: avoid mechanical damage to cells and ensure high cell viability
- Optimized cell culture and tissue engineering techniques



A. Pictures of using L929 cells cultured at 37°C, 5% CO<sub>2</sub> for 48h, harvest when cells are more than 80% confluent.  
B. Pictures after cooling and blowing at 4°C for 20min, the cell shedding rate is greater than 80%-90%.

## Scope of Application

The thermosensitive cell culture surface is suitable for the in vitro culture of most adherent cells, such as stem cells, neural cells, macrophages, cancer cells, etc. It is ideal for harmless cell harvesting. It can be widely used in cell expansion, cell therapy, single cell analysis, 3D tissue modeling, extracellular matrix research and other fields.





## »»» Instructions for Use In Vitro Cell Culture

- When the temperature is above 32°C, the thermosensitive polymer coating on the surface of CellDETACH™ thermosensitive cell culture is in a polymer curl state, showing slight hydrophobicity. Facilitates cell attachment and growth.
- When the temperature is below 32°C, the thermosensitive polymer coating on the surface is in a polymer stretched state, which will bind water molecules and expand, showing hydrophilicity, which will facilitate the shedding of adherent cells. When the temperature drops to 4 °C, the shedding efficiency is the best.
- When the temperature of the thermosensitive cell culture surface drops below 32°C, excessive disturbance may cause cells to fall off, so please do not delay too much when taking pictures and observing during cell culture.

### Cell Harvest

- The best harvest is achieved when the confluence of cells is higher than 80%.
- When harvesting cells, the culture environment temperature should be reduced to 4 °C , or the thermosensitive products should be placed in a sterile incubator at 4 °C, or the culture can be replaced with a culture medium of 4 °C.
- When the temperature of the thermosensitive cell culture surface drops to 4 °C, and keep it for 20 ~ 30 minutes, then aspirate the culture medium above the thermosensitive cell culture surface with a straw ( cell culture dish), pipette or electric pipette (600ml Cell Culture Flask), and blow the cells attached to the culture surface to make them fall off. During the blowing process, the cell sheet can be observed falling off the thermosensitive surface .
- The thermosensitive shedding ability of cells depends on the type of cells, and some cells with strong adherence may be difficult to fall off, which requires multiple blows to fall off. (for example, those digested at 37 °C for more than 3 minutes with 0.25% fresh pancreatin are deemed as cells with strong adherence ability).

### Cell Culture Dishes

Cat. No.	Diameter(mm)	Sterile	Appro. Cell Growth Area (cm <sup>2</sup> )	Per. Bag(Box) / Case
CDD022100	100	Y	60.8	1/24
CDD023100	100	Y	60.8	5/100

### Cell Culture Flasks

Cat. No.	Volume (ml)	Cap Style	Sterile	Appro. Cell Growth Area (cm <sup>2</sup> )	Per. Bag/Case
CDF024600	600	Vent	Y	182	1/20
CDF023600	600	Vent	Y	182	5/40
CDF014600	600	Plug Seal	Y	182	1/20
CDF013600	600	Plug Seal	Y	182	5/40

CellDETACH™ thermosensitive cell culture surface devices are for scientific research only, single use only.

## »»» Storage and Transportation

- This product should not be exposed to direct sunlight or exposure for a long time, but can be stored and transported at room temperature.
- Shelf Life: three years