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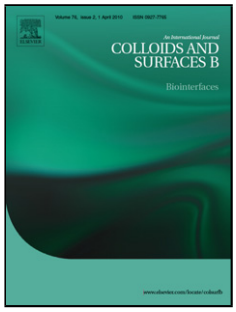

Title: Specific capture, recovery and culture of cancer cells using oriented antibody-modified polystyrene chips coated with agarose film

Authors: Jiyun Jeong, Yeolin Lee, Yeongeun Yoo, Myung Kyu Lee

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Specific capture, recovery and culture of cancer cells using oriented antibody-modified polystyrene chips coated with agarose film

Jiyun Jeong[a,b], Yeolin Lee[a,b], Yeongeun Yoo[c], and Myung Kyu Lee[a,b,*]

[a]Hazards Monitoring Bionano Research Center, Korea Research Institute of Bioscience and Biotechnology (KRIBB) 125 Gwahak-ro, Yuseong-gu, Daejeon, Korea

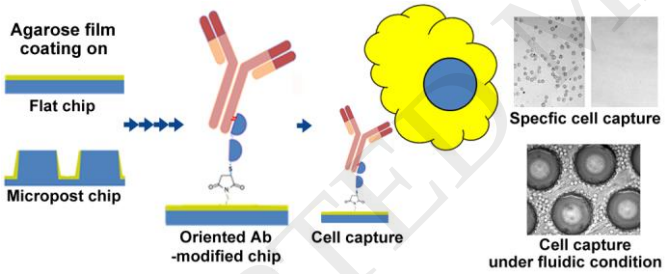
[b]Department of Biosystems and Bioengineering, KRIBB School of Biotechnology, Korea University of Science and Technology(UST), 217 Gajeong-ro, Yuseong-gu, Daejeon, Korea

[c]Department of Nanomanufacturing Technology, Korea Institute of Machinery and Materials, 156, Gajeongbuk-ro, Yuseong-gu, Daejeon, Korea

***Corresponding author:**

E-mail address: mklee@kribb.re.kr (M.K. Lee)

Graphical abstract



Highlights

- We developed a method for agarose film coating on a 3D micropost chip.
- Covalent or cleavable antibody-modified chip was fabricated by film modification.
- Cells were specifically and efficiently captured on the antibody-modified chips.
- Cells captured on the cleavable chips were recovered by trypsin-EDTA treatment.
- Cells were predominantly captured on the micropost walls under fluidic conditions.