

Accepted Manuscript

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



PII: S0927-7765(17)30836-6
DOI: <https://doi.org/10.1016/j.colsurfb.2017.11.071>
Reference: COLSUB 9022

To appear in: *Colloids and Surfaces B: Biointerfaces*

Received date: 1-6-2017
Revised date: 27-10-2017
Accepted date: 30-11-2017

Please cite this article as: Jiyun Jeong, Yeolin Lee, Yeongeun Yoo, Myung Kyu Lee, Specific capture, recovery and culture of cancer cells using oriented antibody-modified polystyrene chips coated with agarose film, *Colloids and Surfaces B: Biointerfaces* <https://doi.org/10.1016/j.colsurfb.2017.11.071>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

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

Jiyeon Jeong^{a,b}, Yeolin Lee^{a,b}, Yeongeun Yoo^c, and Myung Kyu Lee^{a,b,*}

^aHazards Monitoring Bionano Research Center, Korea Research Institute of Bioscience and Biotechnology (KRIIB) 125 Gwahak-ro, Yuseong-gu, Daejeon, Korea

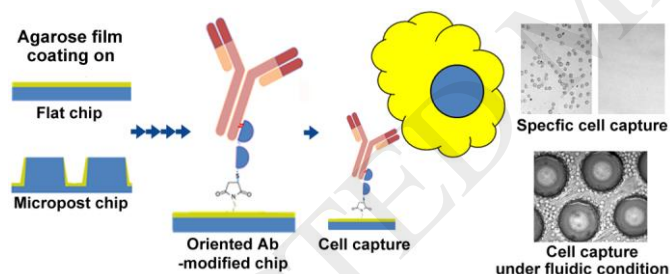
^bDepartment of Biosystems and Bioengineering, KRIIB School of Biotechnology, Korea University of Science and Technology(UST), 217 Gajeong-ro, Yuseong-gu, Daejeon, Korea

^cDepartment 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.

Download English Version:

<https://daneshyari.com/en/article/6980717>

Download Persian Version:

<https://daneshyari.com/article/6980717>

[Daneshyari.com](https://daneshyari.com)