## Fabrication of a novel hydrogel-based microfluidic chip and its application in pathogen analysis

Peng Zhao<sup>a</sup>, Jiajin Zhang<sup>b</sup>, Wei Zhang<sup>a</sup>, Dong Zhao<sup>c</sup>, Yi Ma<sup>d</sup>, Changjun Hou<sup>a</sup>, Laichun Lu<sup>a\*</sup>, Danqun Huo<sup>a\*</sup>

<sup>a</sup> Key Laboratory for Biorheological Science and Technology of Ministry of Education, State and Local Joint Engineering Laboratory for Vascular Implants, Bioengineering College of Chongqing University, Chongqing 400044, PR China

Emory college of Art and Sciences, Emory University, Atlanta, GA 30322,
 America

<sup>c</sup>Strong-flavor Baijiu Solid state Fermentation Key Laboratory of China light industry, Wuliangye Group Co., Ltd, Yibin, 644000, PR China

<sup>d</sup> Liquor Making Biology Technology and Application of Key Laboratory of Sichuan Province, College of Bioengineering, Sichuan University of Science and Engineering, Zigong, 643000, PR China

\* Corresponding author. Tel.: +86 23 6511 2673; fax: +86 23 6510 2507.
E-mail addresses: Lulaicq@163.com (L. Lu) huodq@cqu.edu.cn (D. Huo)

Sample	Components (w/w)
1	DMAEMA
2	PEGDA
3	PEGDA/DMAEMA=5:5+5%NVP
4	PEGDA/DMAEMA=6:4+5%NVP
5	PEGDA/DMAEMA=7:3+5%NVP
6	PEGDA/DMAEMA=5:5+10%NVP
7	PEGDA/DMAEMA=6:4+10%NVP
8	PEGDA/DMAEMA=7:3+10%NVP

 Table S1. Sample design for contact angle measurement.



Fig. S1 The result of contact angle measurement.



Fig. S2 The effect of enrichment time and flow rate on enrichment efficiency.



Fig. S3 Coloring effect of different concentrations of chromogenic media (g/mL).



Fig. S4 Comparison of growth of *E.coli* cultured on microfluidic chip and in flasks.