Supporting Information

Physical Confinement in Alginate Cryogels Determines Macrophage Polarization to a M2 phenotype by Regulating a STAT-Related mRNA Transcription Pathway

Zhen-Zhen Liu^{1,#}, Nian-Yuan Xu^{1,#}, Mei-Ling Wang¹, Rui-Zhi Tang^{2,*}, Xi-Qiu Liu^{1,*}

¹ School of Pharmacy, Tongji Medical College, Huazhong University of Science and Technology,

Wuhan, 430030, P.R. China

² Department of Medical Laboratory, The Central Hospital of Wuhan, Tongji Medical College, Huazhong University of Science and Technology, Wuhan, 430030, P.R. China

[#] Equal contribution.

* Corresponding author: Dr. Rui-Zhi Tang (<u>ruizhitang@163.com</u>)

Prof. Xi-Qiu Liu (xiqiuliu@hust.edu.cn)



Figure S1. Characterization of cryogels after macrophage incubation. (A) Representative SEM images. (B) Pore size, interconnected porosity, swelling ratio and Young's modulus of three cryogels. Scale bar: 200 μ m. **, *p*< 0.01; ***, *p*< 0.001; ns, not significant.



Figure S2. Characterization of cryogels before and after RGD modification. (A) XPS wide scans. (B) SEM images. Scale bar: 100 μm. (C) Relative cell viability.