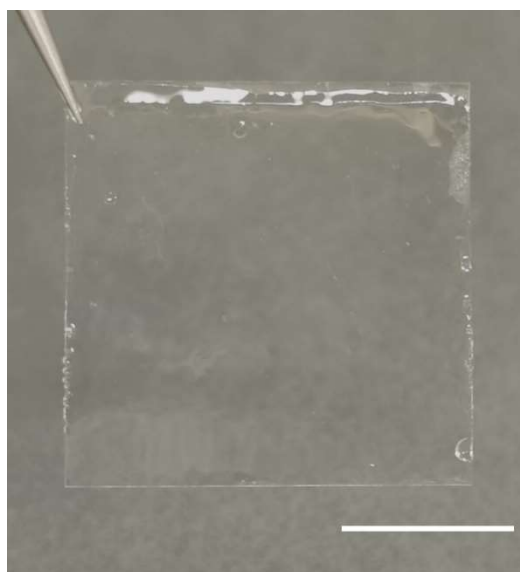


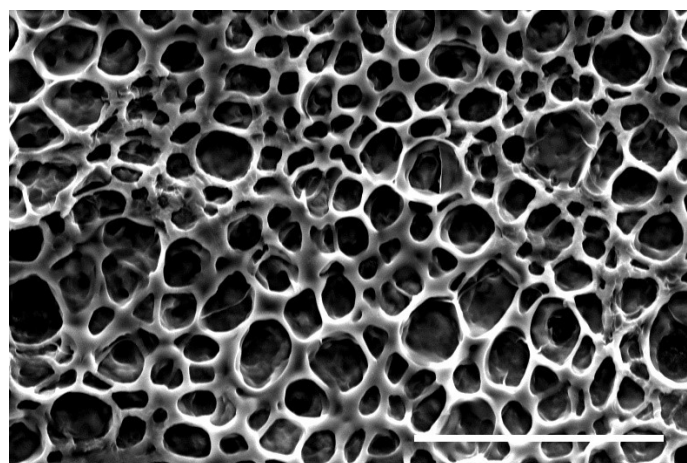
## Supplementary Materials

### Stiff Extracellular Matrix Promotes Invasive Behaviors of Trophoblast Cells

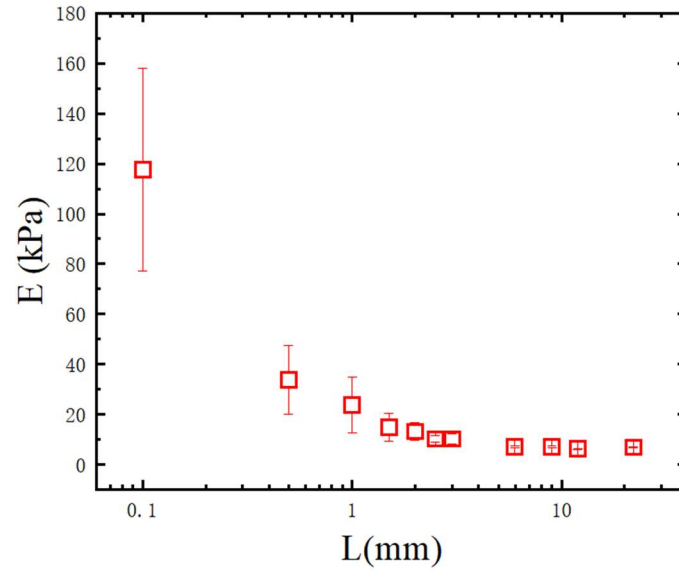
Jialing Cao <sup>1,2</sup>, Hangyu Li <sup>3,4</sup>, Hongyan Tang <sup>1</sup>, Xuenan Gu <sup>1</sup>, Yan Wang <sup>5,\*</sup>,  
Dongshi Guan <sup>3,4,\*</sup>, Jing Du <sup>1,\*</sup> and Yubo Fan <sup>1,\*</sup>



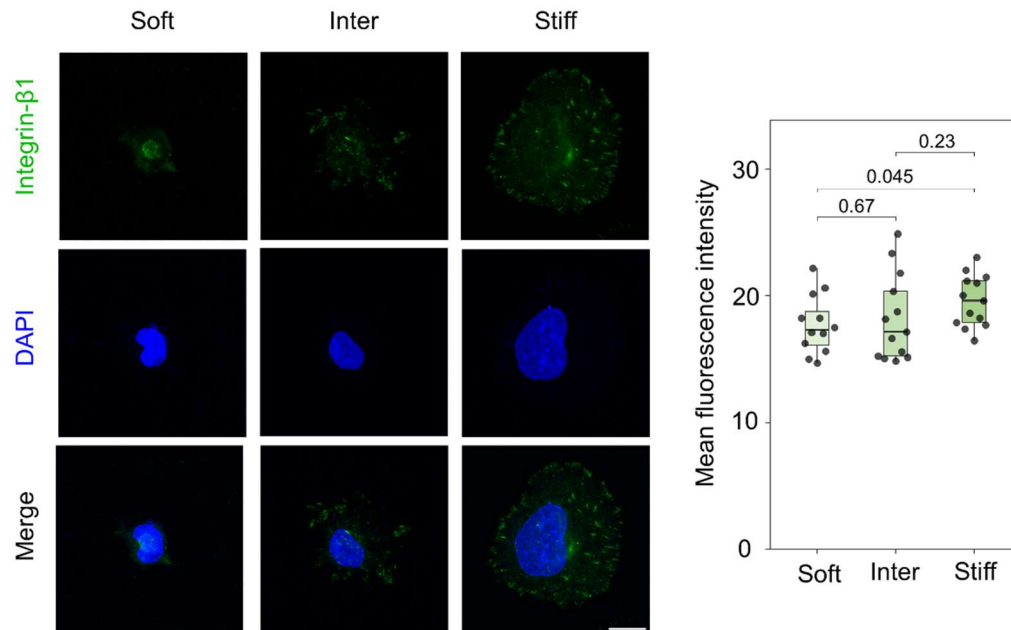
**Figure S1.** Fabricated sample of polyacrylamide hydrogel with stiffness gradient. Scale bar = 10 mm.



**Figure S2.** SEM analysis of PA gel surface. Scale bar = 30 $\mu$ m.



**Figure S3.** Elastic modulus measured by AFM. Data reported as mean  $\pm$  standard deviation for N = 3 independent experiments.



**Figure S4.** Left: Immunofluorescence staining of JAR cells cultured on different regions (green: integrin- $\beta$ 1; blue: DAPI, scale bar: 20  $\mu$ m). Right: mean fluorescence intensity of integrin- $\beta$ 1 in JAR cells cultured on different regions. n = 12, 13, 13 for Soft, Inter and Stiff, respectively. Data reported as mean  $\pm$  standard deviation.