Electronic Supplementary Information (ESI)

Conductive Graphene Oxide Hydrogels Reduced and Bridged by L-Cysteine to Support Cell Adhesion and Growth

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Results and discussion

1, XPS of rGO hydrogels

The reduction of GO and oxidation of L-cysteine were investigated by the XPS of rGO hydrogels. The XPS of dried rGO hydrogels shows a peak of C 1s (Fig. S1a), a peak of O 1s (Fig. S1b) and a following peak of S 2p (Fig. S1c). Specifically, the bands at 532.4 eV and 163.6 eV suggest the presence of oxidized sulfur atoms, in addition to the sulfur in thiol groups, which indicate the oxidation of some thiol groups, while the GO nanosheets were reduced L-cysteine.

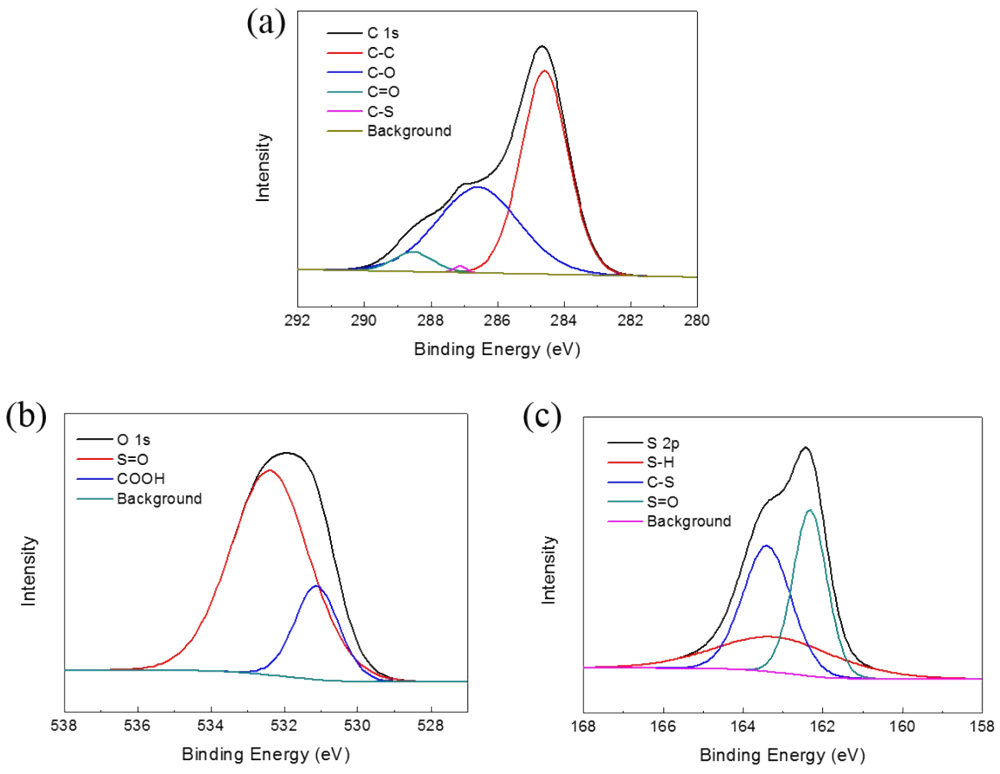

Figure S1. (a) C 1s, (b) O 1s and (c) S 2p spectra of XPS of rGO hydrogels which mass ratio of GO and L-cysteine is 1 : 1.

2, SEM images of hydrogels for cell culture

In Fig. S2, the cells adhered on the surface of the rGO hydrogels are spherical, and more cells can be seen on the rGO hydrogels over time.

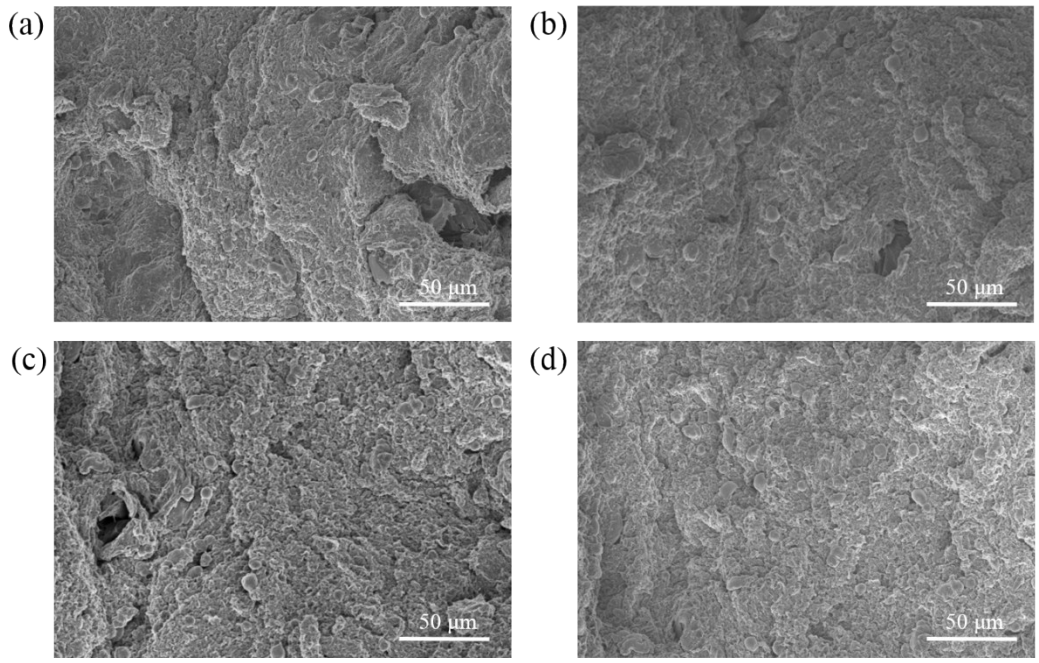

Figure S2. SEM images of dehydrating hydrogels for cell culture for 1 (a), 3 (b), 5 (c) and 7 (d) days, the scale bars are 50 μm. The mass ratio of GO and $_{L}$-cysteine of the sample is 1 : 20.