Supporting Information

Enhanced osteogenic differentiation of BMSCs and M2-phenotype polarization of macrophages on titanium surface modified with graphene oxide for potential implant application

Qingfan Li,[a,b] Anfeng Shen,[c] and Zuolin Wang*[,a,b]

[a]Shanghai Engineering Research Center of Tooth Restoration and Regeneration, Shanghai, 200072, China

[b]Department of Oral Implant, School of Stomatology, Hospital of Stomatology, Tongji University, Shanghai, 200092, China

[c]School of Materials Science and Engineering, University of Shanghai for Science and Technology, Shanghai, 200093, China

*Corresponding author.

Shanghai Engineering Research Center of Tooth Restoration and Regeneration, Department of Oral Implant, School of Stomatology, Tongji University, 399 Yanchang Road, Shanghai, 200072, China.

E-mail: zuolin@tongji.edu.cn; Fax: +86-21-66524025; Tel: +86-21-66313725

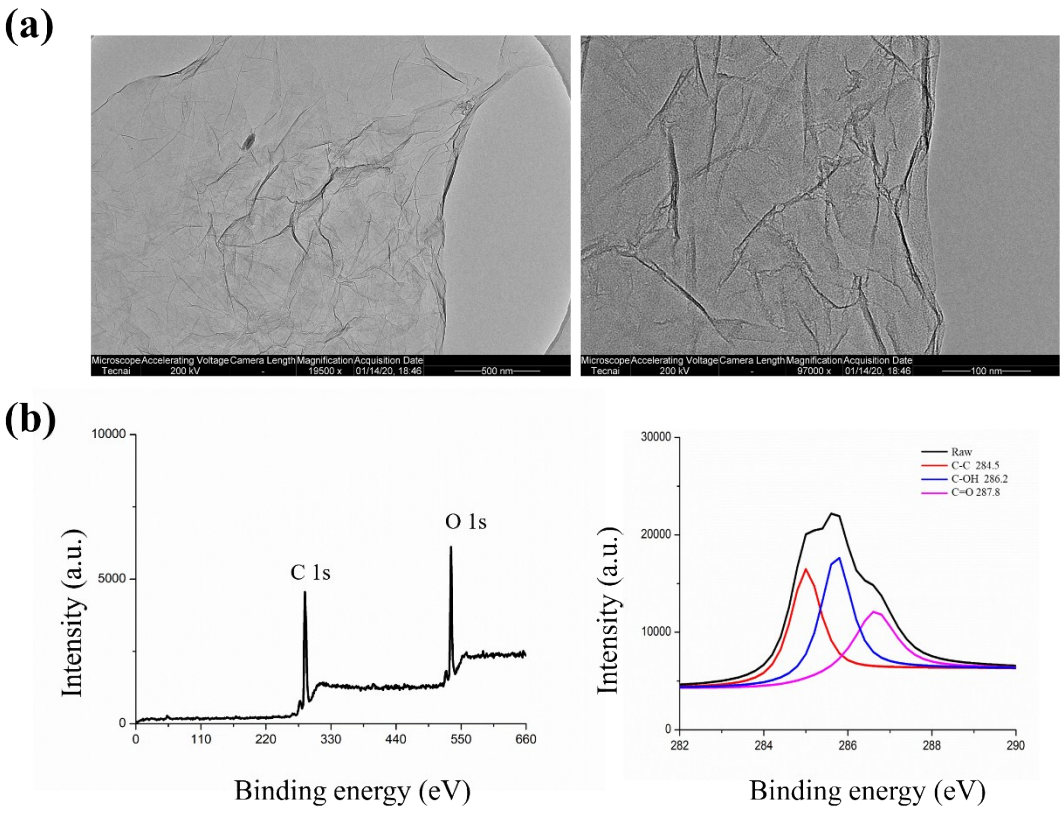

Fig. S1. TEM and XPS were used to evaluate the GO used in this experiment. (a) TEM images for GO. (b) Full spectrum of XPS for GO and spectrum of C1s to show the bonds in the GO.

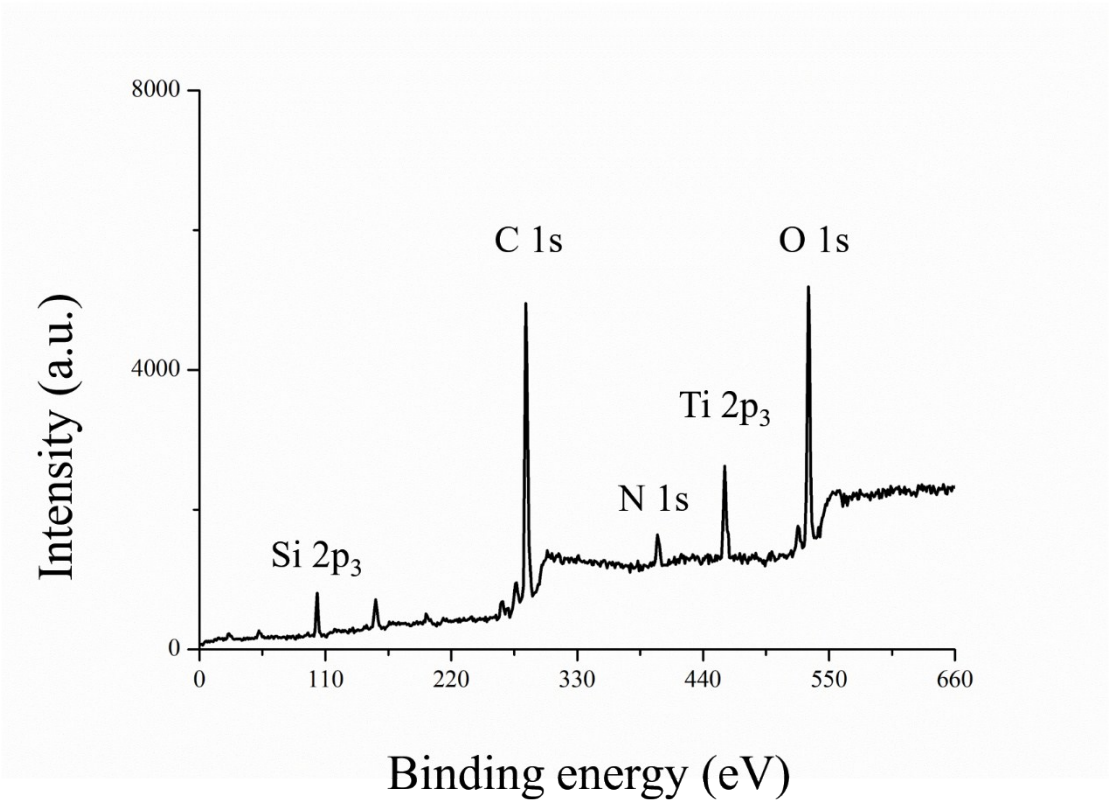

Fig. S2. XPS was used to identify the successful modification of APTES on the SLA surface before GO coating.

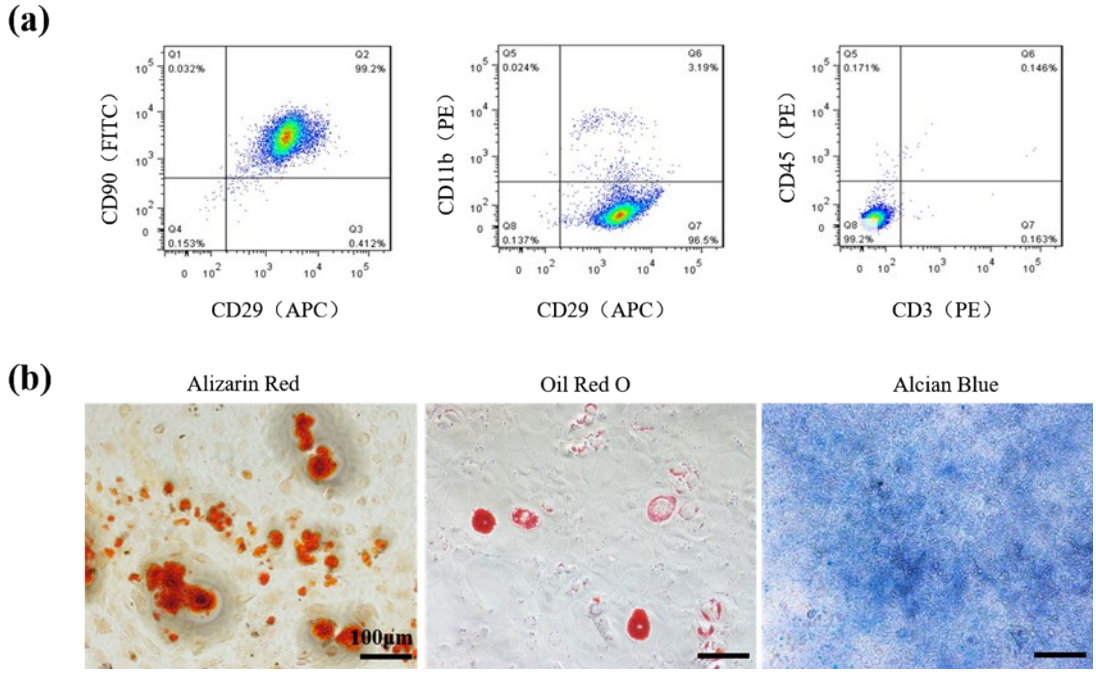

Fig. S3. Identification of BMSCs derived from rat bone marrow. (a) Flow cytometry was used to detect the expression of the indicated cell surface markers related to the BMSCs. (b) Alizarin red staining showed the osteogenic differentiation of the BMSCs, Oil Red O staining showed the adipogenic differentiation of the BMSCs, Alcian Blue staining showed the chondrogenic differentiation of the BMSCs.