

Supporting Information

GMBP1-conjugated Manganese Oxide Nanoplates for in vivo Monitoring of Gastric Cancer MDR using Magnetic Resonance Imaging

Wenhua Zhan^{1,2†}, Xiaoxia Cai^{3†}, Hairui Li³, Getao Du³, Hao Hu⁴, Yayan Wu¹ and Lin Wang^{5*}

¹ Key Laboratory of Biomedical Information Engineering of Education Ministry, School of Life Science and Technology, Xi'an Jiaotong University, Xi'an 710049, Shaanxi, China; zhanwhgood@163.com (W.Z.); wuyayan@mail.xjtu.edu.cn (Y.W.)

² Department of Radiation oncology, General Hospital of Ningxia Medical University, Yinchuan 750004, Ningxia, China; zhanwhgood@163.com

³ Engineering Research Center of Molecular & Neuro Imaging of the Ministry of Education, School of Life Science and Technology, Xidian University, Xi'an 710071, Shaanxi, China; c18392638127@163.com (X.C.); hrli330@163.com (H.L.); dgt199518@163.com (G.D.)

⁴ Endoscopic Center of Zhongshan Hospital, Fudan University, Shanghai 200032, China; hu.hao1@zs-hospital.sh.cn

⁵ School of Information Sciences and Technology, Northwest University, Xi'an 710127, Shaanxi, China

* Correspondence: wanglinmig@gmail.com; Tel.: +86-29-88308119

† This author contributed equally to this work

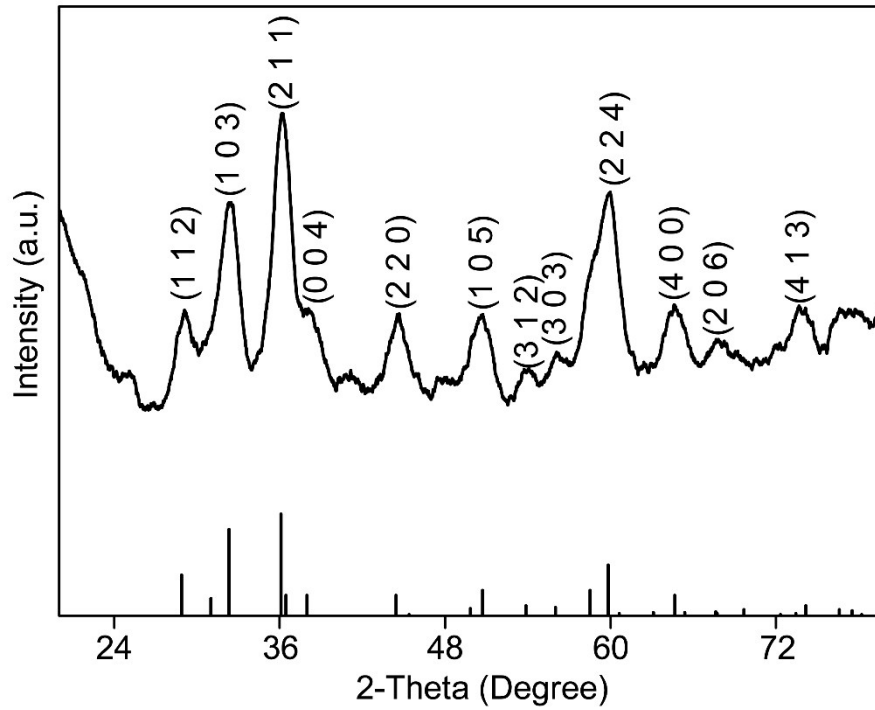


Figure S1 X-ray diffraction pattern of Mn₃O₄ nanoplates.

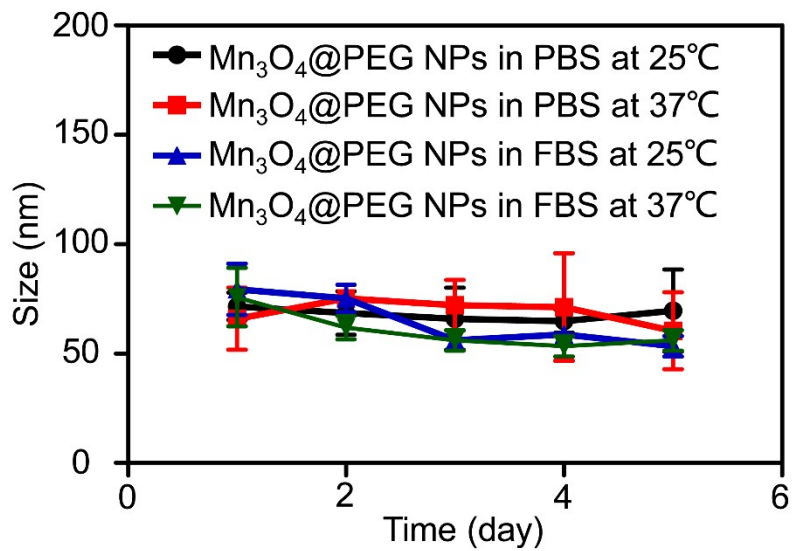


Figure S2 Hydrodynamic size of the Mn₃O₄@PEG at different time periods in PBS and 10%FBS at different temperatures.

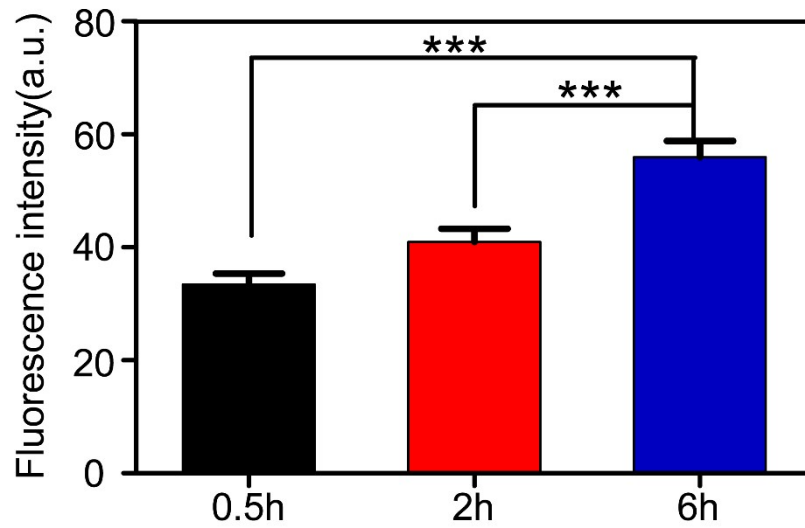


Figure S3 The quantitative analysis of fluorescence intensity for Mn_3O_4 @PEG-GMBP1 NPs in SGC7901/ADR cells at 0.5, 2, and 6 h. *** $p < 0.01$; $n=3$.

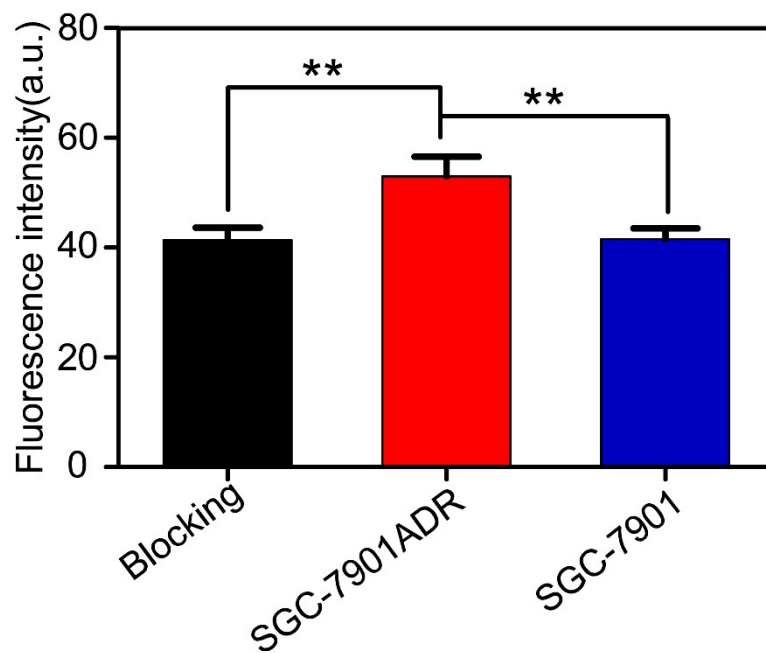


Figure S4 The quantitative analysis of fluorescence intensity for Mn_3O_4 @PEG-GMBP1 NPs in SGC7901/ADR, SGC7901, and GMBP1-blocking SGC7901/ADR cells. ** $p < 0.05$; $n=3$.