

## Supplementray Information

### Dual-targeting nanotheranostics for MRI-guided enhanced chemodynamic therapy of hepatoma via regulating the tumor microenvironment

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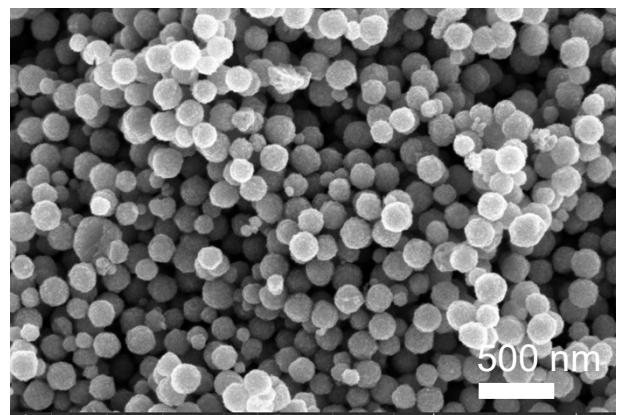
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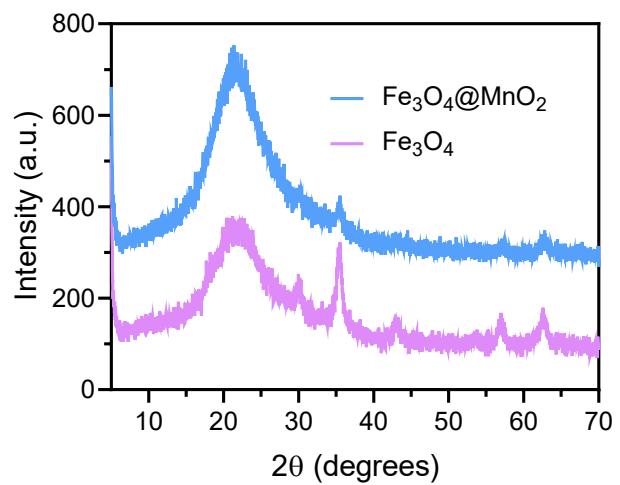
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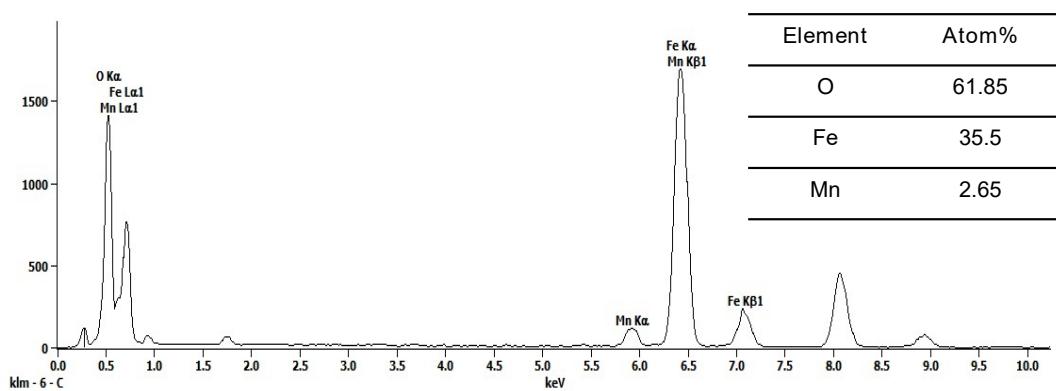
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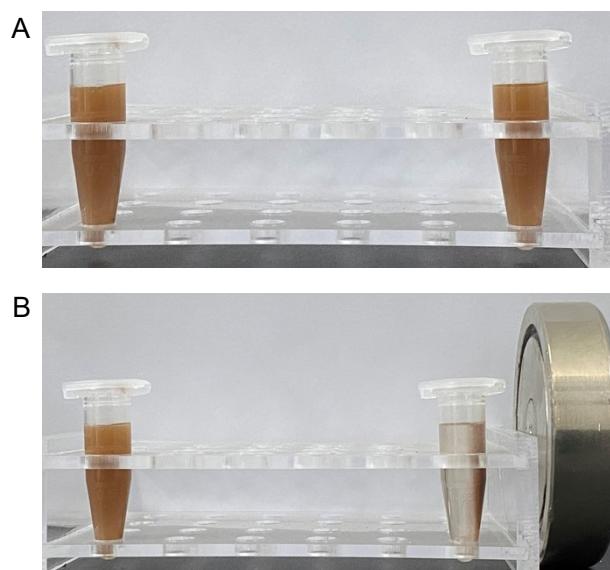
**Figure S1.** SEM image of Fe<sub>3</sub>O<sub>4</sub> NPs.



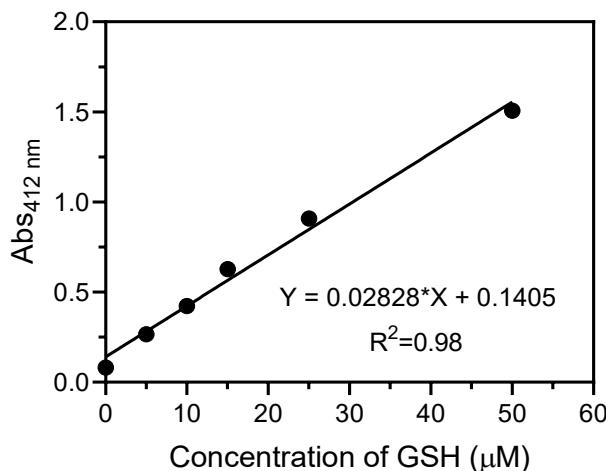
**Figure S2.** XRD patterns of Fe<sub>3</sub>O<sub>4</sub> NPs and Fe<sub>3</sub>O<sub>4</sub>@MnO<sub>2</sub>.



**Figure S3.** ESD spectrum of FM NPs.



**Figure S4.** The photograph of FM@TCM NPs in PBS (A) and treated with external magnetic field (B).



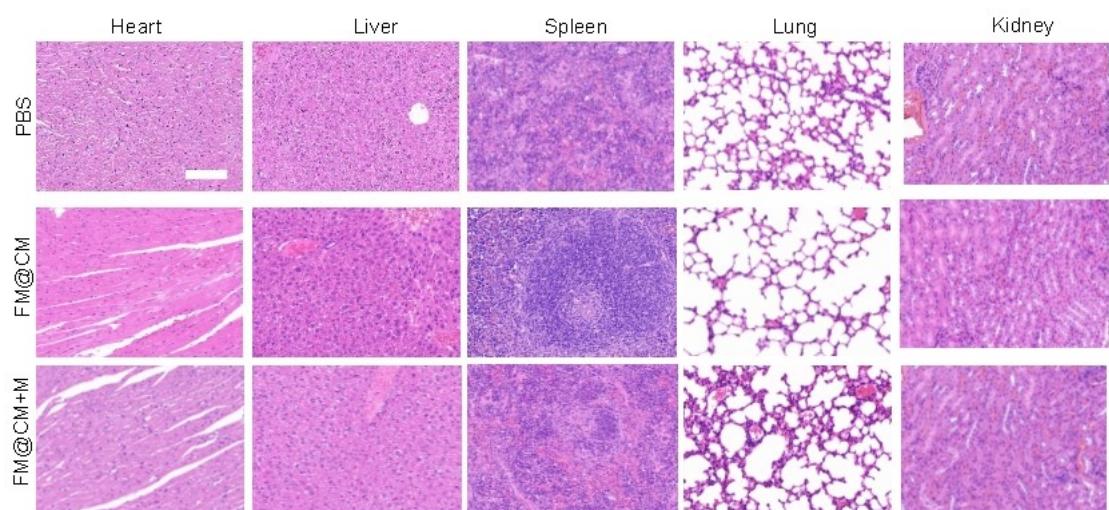
**Figure S5.** The standard linear relation of absorbance at 412 nm versus GSH concentration.

**Table S1.** IC<sub>50</sub> of similar materials on SMCC-7721 cells.

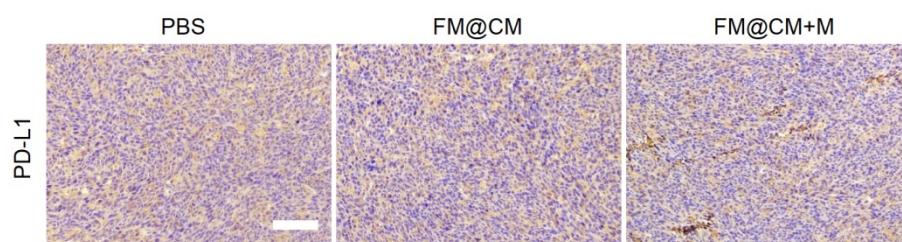
Nanomedicine	IC <sub>50</sub> (μg/mL)	Reference
Au@PB NPs	76.6	<i>ACS Appl. Mater. Interfaces</i> , 2019, <b>11</b> , 39493–39502
AFG/SFB@PEG	35	<i>Acta Biomater.</i> , 2023, <b>159</b> , 237–246
MSN@H6L@βCD@AMPPD NPs	900	<i>ACS Appl. Bio Mater.</i> , 2021, <b>4</b> , 1740–1748
NBOF@SOR-P-FA	80	<i>Adv. Healthcare Mater.</i> , 2020, <b>9</b> , 2000650
SnS-PEG NSs	35	<i>J. Mater. Chem. B</i> , 2018, <b>6</b> , 4747-4755
FM@TCM	20	In this work

## References

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5. Z. Xie, D. Wang, T. Fan, C. Xing, Z. Li, W. Tao, L. Liu, S. Bao, D. Fan and H. Zhang, *J. Mater. Chem. B*, 2018, **6**, 4747-4755.



**Figure S6.** H&E staining of heart, liver, spleen, lung, and kidney in mice after treated with different groups.



**Figure S7.** PD-L1 staining image of SMCC-7721 tumors after treated with different groups.