Supporting information available:

Size-controlled preparation of magnetic iron oxide nanocrystals within hyperbranched polymers and their magnetofection *in vitro*

Yunfeng Shi,*^a Jimin Du,^a Linzhu Zhou,^b* Xintao Li,^a Yahui Zhou,^a Lingling Li,^a Xiuxiu Zang,^a Xiaoyin Zhang^a, Fuchao Pan,^a Huanhuan Zhang,^a Zongyao Wang^a and Xinyuan Zhu^b*

¹School of Chemistry and Chemical Engineering, Anyang Normal University, Anyang 455000, People's Republic of China

² School of Chemistry and Chemical Engineering, State Key Laboratory of Metal Matrix Composites, Shanghai Jiao Tong University, 800 Dongchuan Road, Shanghai 200240, People's Republic of China

* To whom correspondence should be addressed. Tel.: +86-372-2900040; Fax:
+86-372-2900040; E-mail: shiyunfeng2009@gmail.com; linzhuzhou@sjtu.edu.cn;
xyzhu@sjtu.edu.cn.



Figure S1. EDS of Mag-HPEI-1.25.



Figure S2. XPS spectra of Mag-HPEI-1.



Figure S3. Determination of plasmid DNA condensation by gel retardation assay.

Plasmid DNA was complexed with Mag-HPEI-1 at various Fe/DNA weight ratios 0,

0.1, 0.2, 0.5, 0.75, 1, 1.5, and 2 from left to right and loaded into an agarose gel.

Complexation prevented DNA migration into gel.



Figure S4. ¹H NMR spectra of (a) HPEI and (b) HPEI treated by H_2O_2 .