Supporting Information

A value-added exopolysaccharide as a coating agent for MRI nanoplatforms

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Supporting Figures and table

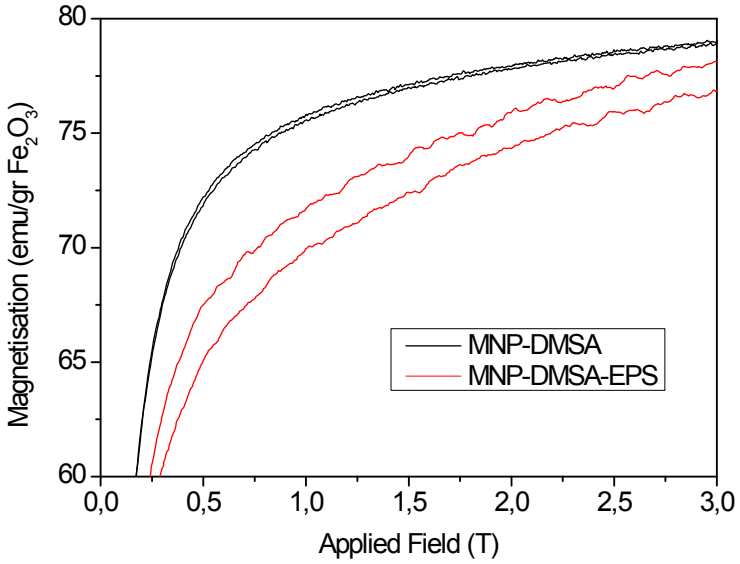

Figure S1. Detail of MNP-DMSA and MNP-DMSA-EPS magnetization loops.

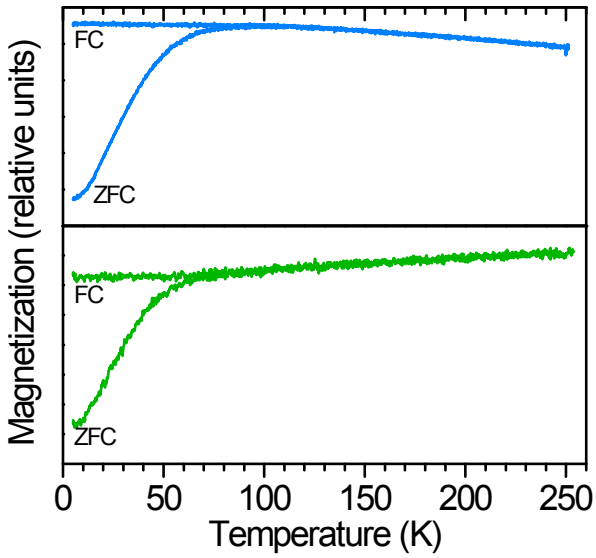

Figure S2. Temperature dependent zero-field cooling (ZFC) and field cooling (FC) magnetization measurements were performed by cooling the samples to 5 K under a zero or a 0.01 T magnetic field, respectively. Then, the magnetization was measured while the samples were heated (3 K/min) to 250 K under a 0.01 T field. Curves for MNP-DMSA are represented in blue and curves for MNP-DMSA-EPS are represented in green.

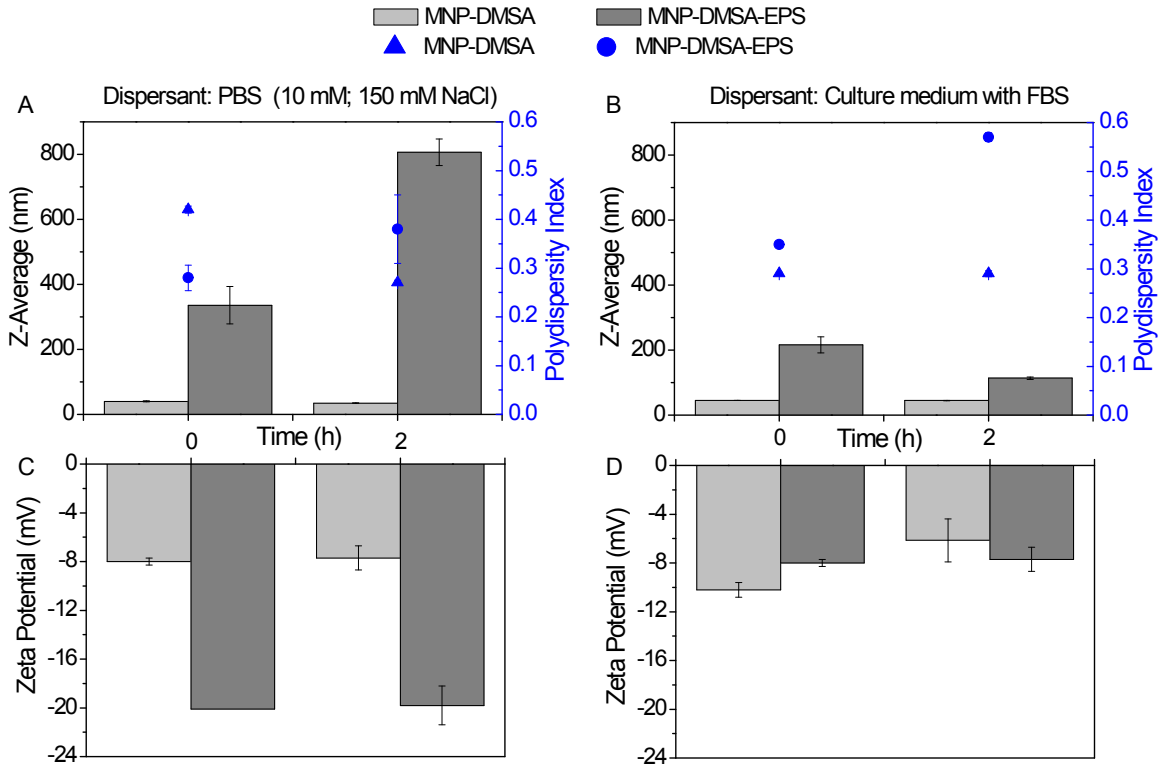

Figure S3. Variation of hydrodynamic diameter, polydispersity index and zeta potential of MNP-DMSA and MNP-DMSA-EPS when are they dispersed in phosphate buffered saline (PBS, 10 mM, 150 mM NaCl, pH 7.4) (A and C) or in DMEM culture medium with fetal bovine serum (FBS) (B and D). Measurements were taken immediately after adding the particles to the dispersants and after 2 h of incubation in those dispersants.

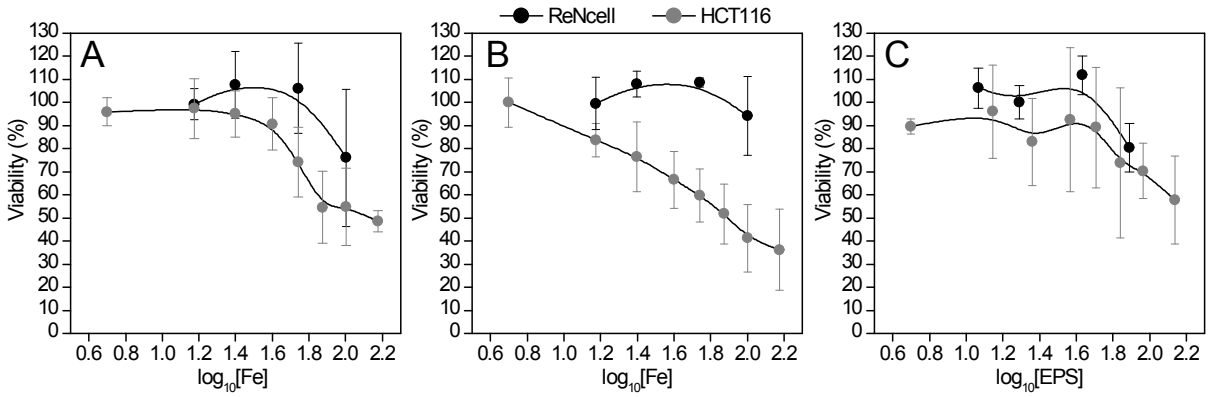

Figure S4. Effect of (A) MNP-DMSA, (B) MNP-DMSA-EPS and (C) EPS on cell viability for HCT116 (grey symbols) after 48h of incubation and ReNcell VM (black symbols) after 4h of incubation plus 24h of recovery in fresh medium. Results are expressed in terms of $\log_{10}$ [Fe] (or

$\log_{10}$ [EPS]) *vs* viability and points are connected by a B-spline to guide the eye. Results are the mean of at least 2 independent experimental assays.

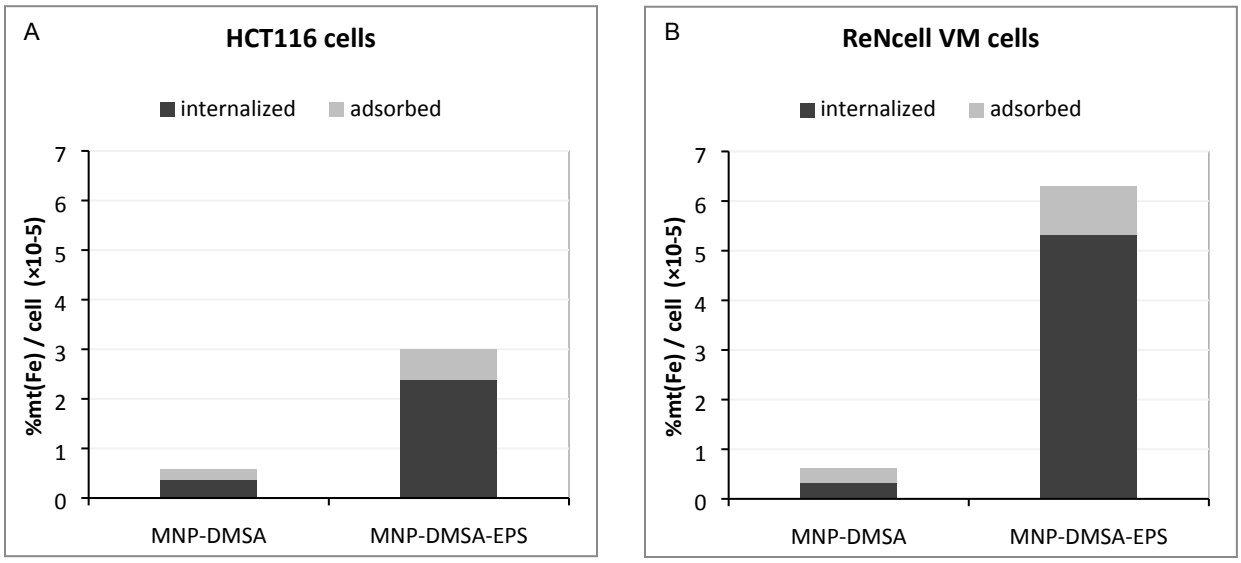

Figure S5. Contribution of internalized and adsorbed nanoparticles for the cellular iron found in HCT116 (A) and ReNcell VM (B) cells after labeling with MNP-DMSA or MNP-DMSA-EPS.

	Cell line			
	HCT116		**ReNcell VM**	
	% internalization	% adsorption	% internalization	% adsorption
MNP-DMSA	63	37	53	47
MNP-DMSA-EPS	80	20	85	15

Table S1. Distribution of cellular iron between internalized and adsorbed fractions.

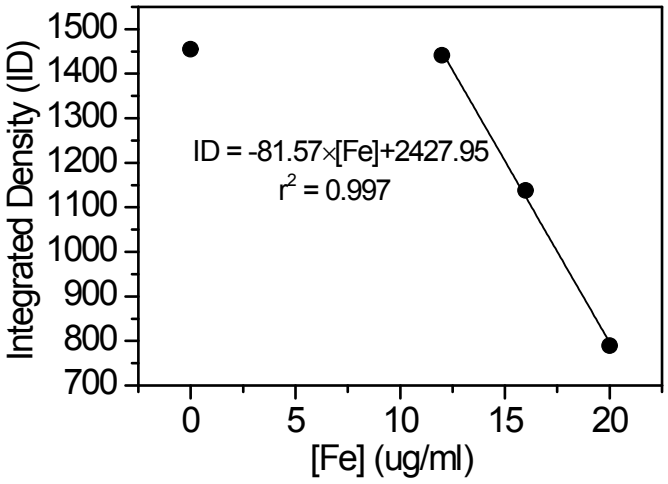

Figure S6. Linear adjustment of signal intensity (integrated density) of ReNcell VM MRI phantom images as a function of iron concentration in MNP-DMSA-EPS added to the culture medium for labeling. The first data point (signal intensity of unlabeled cells in agarose) was not accounted for the fitting.