

Supplementary Materials

# Blood Compatibility of Drug-Inorganic Hybrid in Human Blood: Red Blood Cell Hitch-Hiking and Soft Protein Corona

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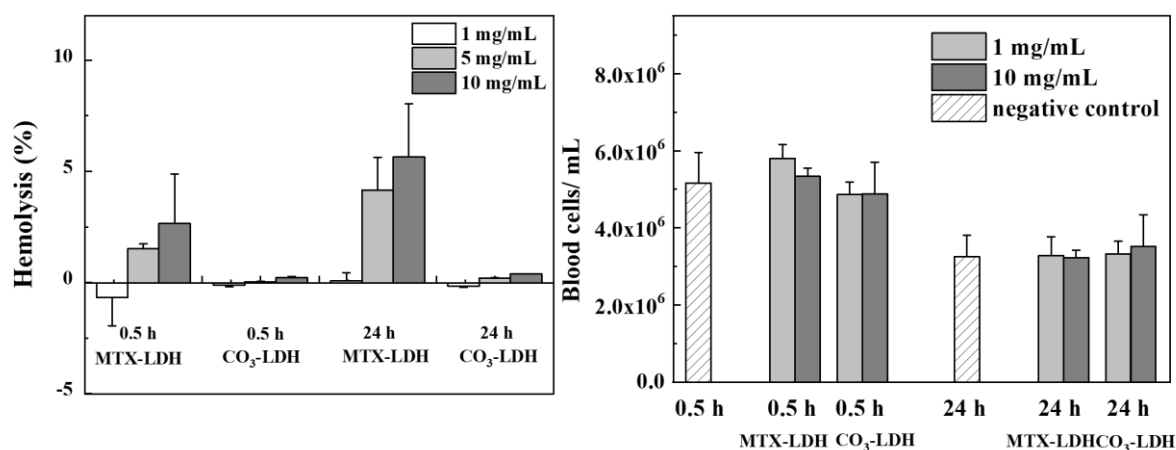
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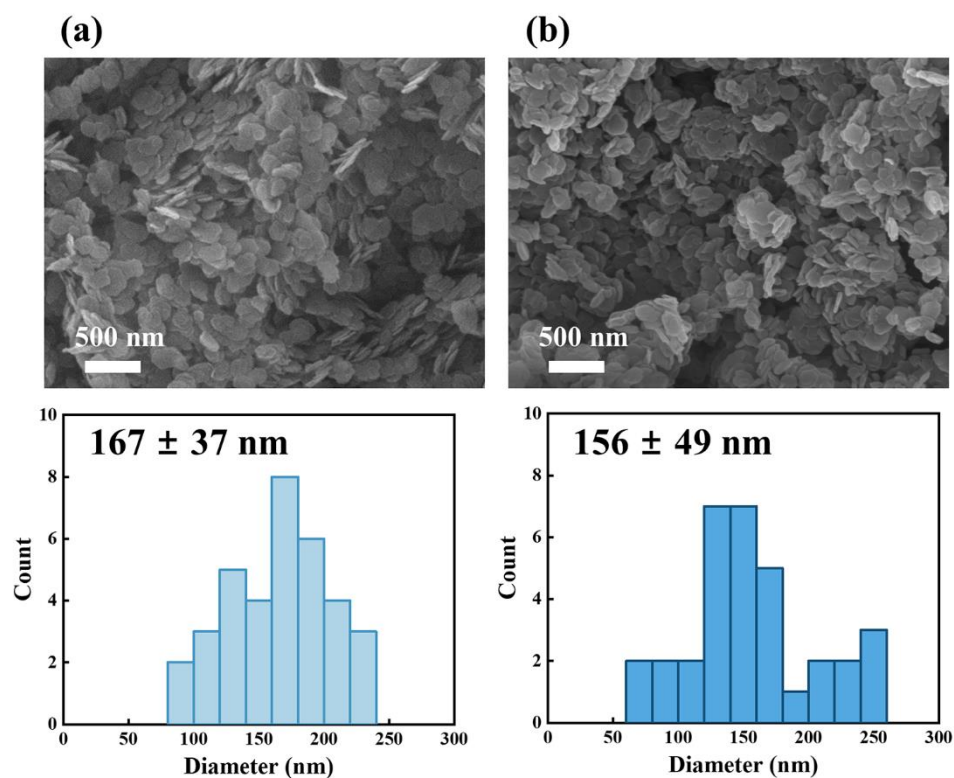
1. Hemolysis and cell count assay
2. Scanning electron microscopy
3. Atomic force microscopy
4. Dynamic scattering (DLS) and electrophoretic light scattering (ELS) measurements
5. Fluorescence quenching assay

## 1. Hemolysis and cell count assay

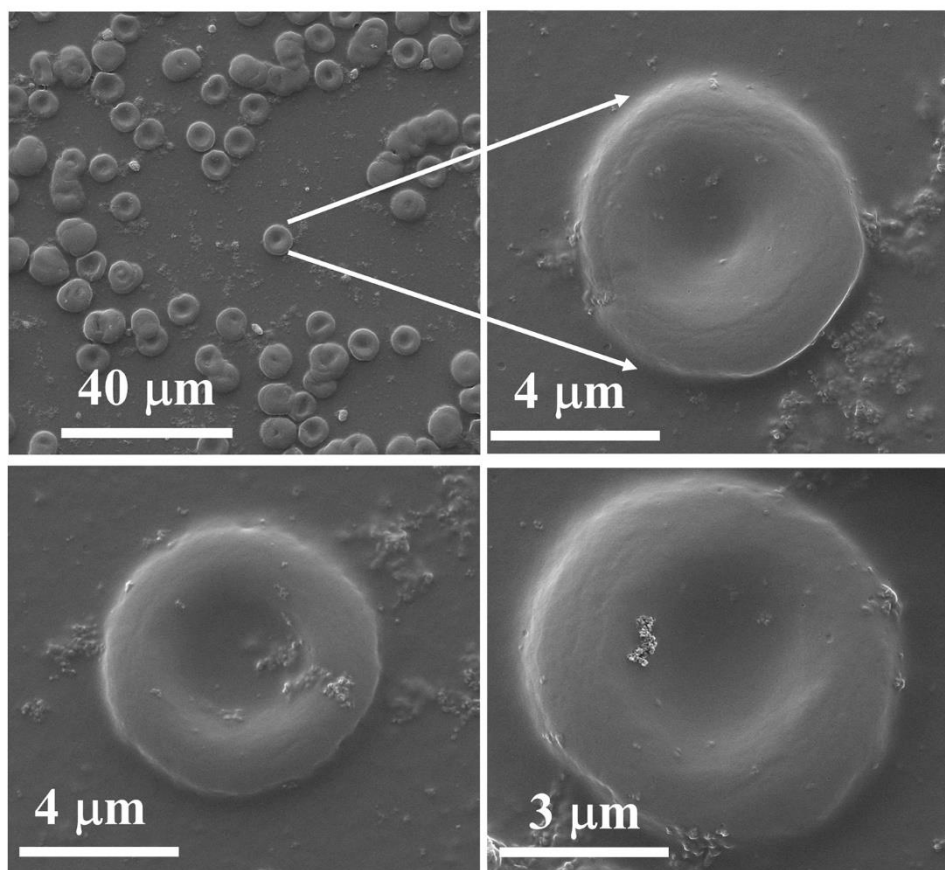


**Figure S1.** In vitro (a) hemolysis after incubation with MTX-LDH and CO<sub>3</sub>-LDH suspension with 1, 5, 10 mg/mL in human blood for 0.5 h and 24 h; (b) The number of viable blood cells after incubation with MTX-LDH and CO<sub>3</sub>-LDH suspension with 1 mg/mL, and 10 mg/mL in human blood for 0.5 h and 24 h.

## 2 SEM

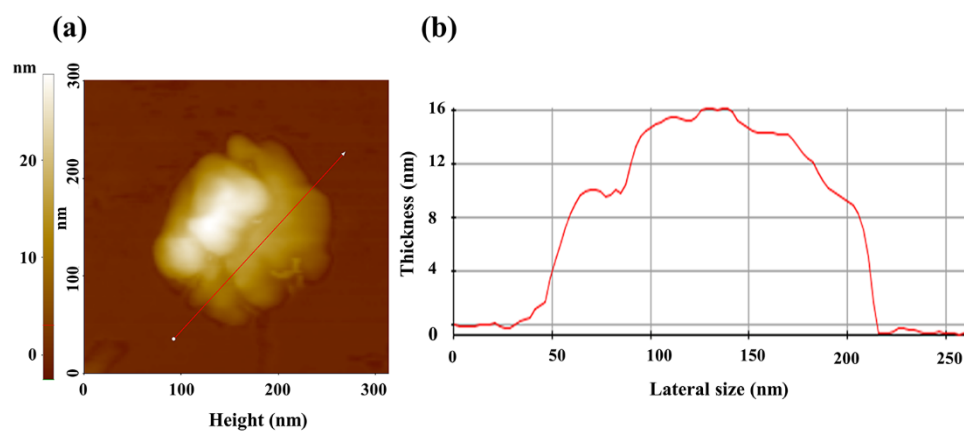


**Figure S2.** SEM images of LDH (a), and MTX-LDH (b) with the corresponding size distribution. Particle sizes collected by Nano Measurer 1.2 software in SEM images. Mean particle size, and standard deviation obtained by t-test in Origin.



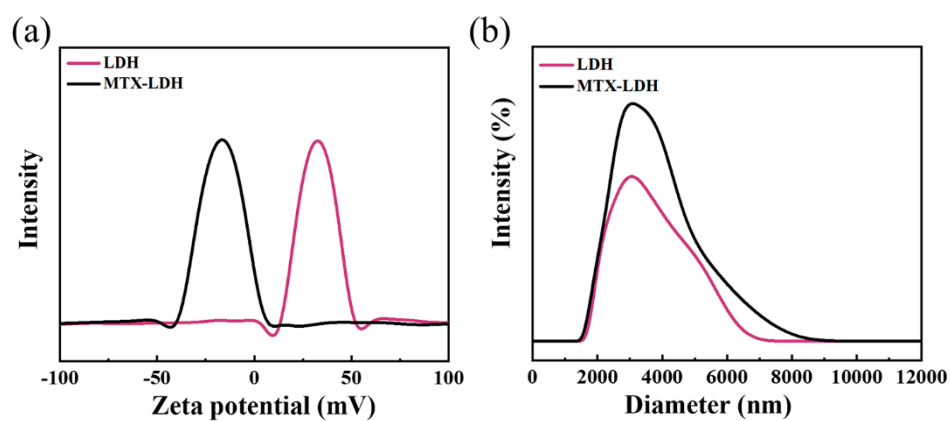
**Figure S3.** SEM images of red blood cells incubation with MTX-LDH (10 mg/mL) after 3 h.

### 3 AFM



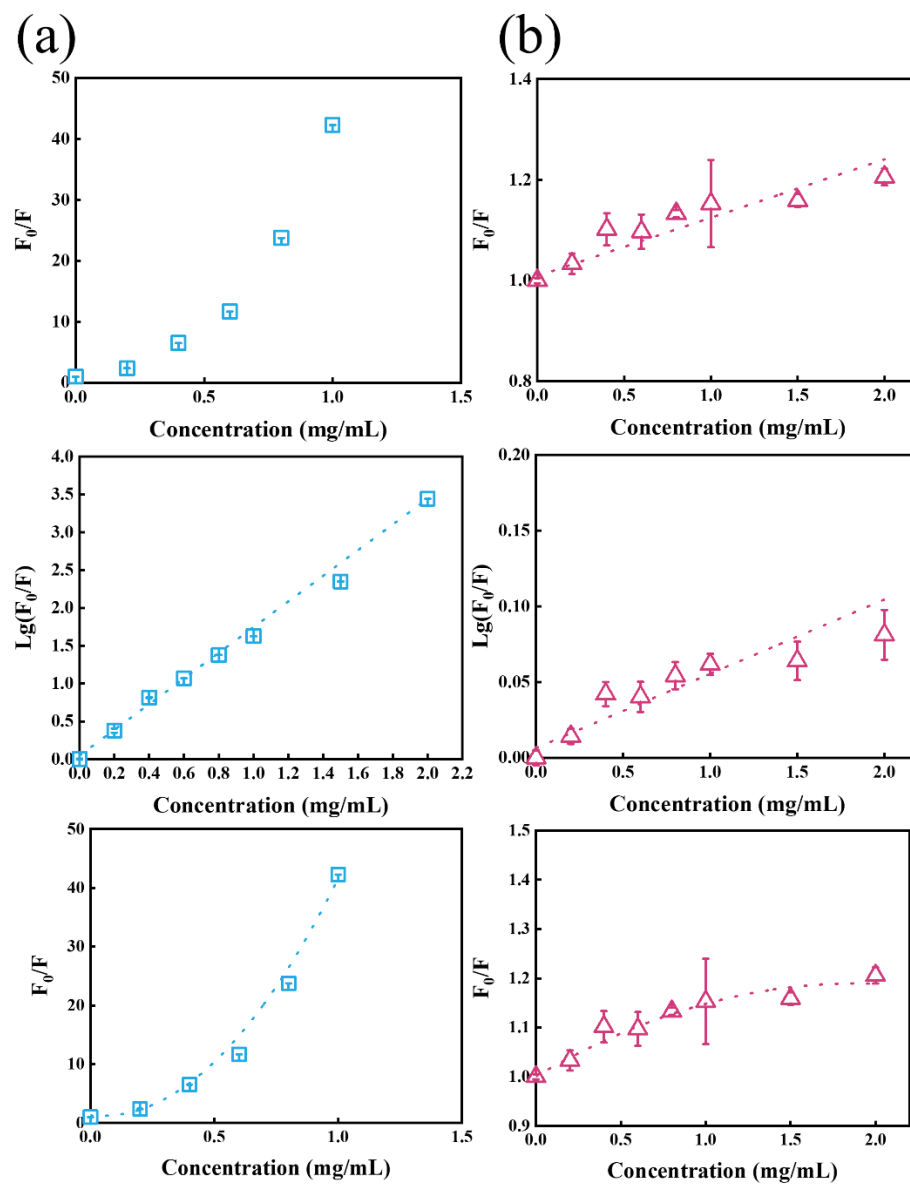
**Figure S4.** (a) AFM images of MTX-LDH dispersed in water as morphology map, and (b) cross-sectional height profile of the lined part of image.

#### 4 Dynamic scattering (DLS) and electrophoretic light scattering (ELS) measurements



**Figure S5.** (a) Zeta potentials and (b) particle size distribution of LDH, and MTX-LDH in neutral aqueous suspension.

## 5 Fluorescence quenching assay



**Figure S6.** Fluorescence quenching of human plasma by (a) MTX-LDH, and (b) LDH, fitted with Stern-Volmer equation, Perrin equation, and polynomial equation.