

## **Magnetic-EpCAM Nanoprobe as a New Platform for Efficient Targeting, Isolating and Imaging Hepatocellular Carcinoma**

C. Pilapong <sup>a,\*</sup>, C. Raiputta <sup>a</sup>, J. Chaisupa <sup>a</sup>, S.Sittichai<sup>b</sup>, S. Thongtem <sup>b</sup>, T. Thongtem <sup>c</sup>

<sup>a</sup> Center of Excellence for Molecular Imaging (CEMI), Department of Radiologic Technology, Faculty of Associated Medical Sciences, Chiang Mai University, Chiang Mai 50200, Thailand

<sup>b</sup> Department of Physics and Material Science, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand

<sup>c</sup> Department of Chemistry, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand

\* Corresponding author. Tel.: +66 53 94 9306; fax: +66 53 21 3218.

E-mail address: chalermchai.pilapong@cmu.ac.th (C. Pilapong).

### **Experiment**

#### *Inhibition studies*

The HepG2 cells were pretreated for 30 min at 37 °C and 5% CO<sub>2</sub> with DMEM containing 50 mM sodium azide, which act as endocytosis inhibitor. After that, 100 uL of EpCAM-MNP was added to the above solution and further incubated for 5 h at 37 °C and 5% CO<sub>2</sub>. The effect of inhibitor on cellular uptake of EpCAM-MNP via endocytosis pathway was determined by measuring intracellular iron content and compared with control cells (incubation without inhibitor).

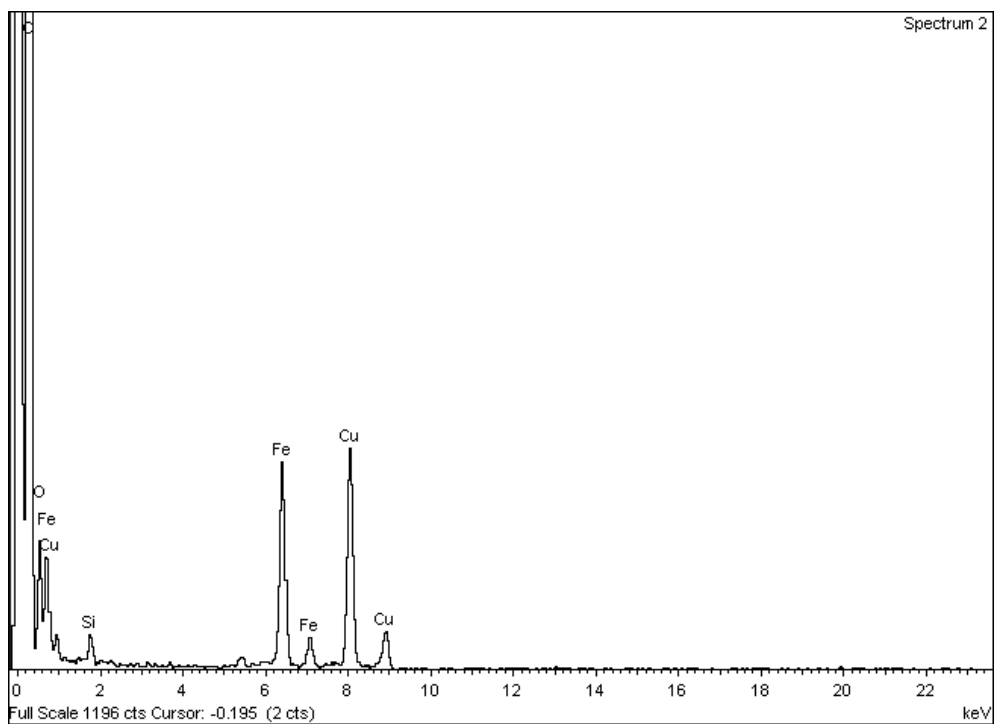


Fig. S1 EDS spectrum of NH<sub>2</sub>-MNP

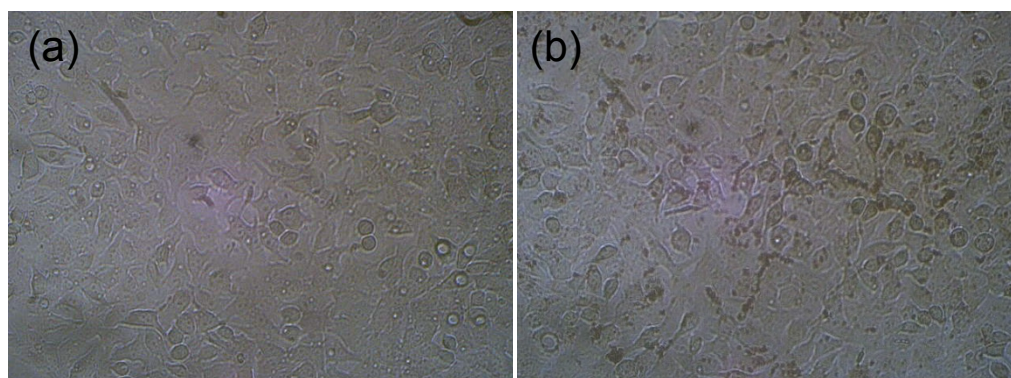


Fig S2. Optical microscope images of untreated cells (a) and the cells treated with EpCAM-MNPs for 48h (b).