

Detection of a miRNA biomarker for cancer diagnosis using SERS tags and magnetic separation

Kiatnida Treerattrakoon,^{a,c} Pimporn Roekrungruang,^a Tararaj Dharakul,^b Deanpen Japrungr,^a Karen Faulds,^c Duncan Graham,^c and Suwussa Bamrungsap^{*a}

^aNational Nanotechnology Center (NANOTEC), National Science and Technology Development Agency (NSTDA), Pathumthani 12120, Thailand.

^bDepartment of Immunology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok 10700, Thailand.

^cDepartment of Pure and Applied Chemistry, Technology and Innovation Centre, University of Strathclyde, 99 George Street, Glasgow, UK.

*Corresponding Author's E-mail: suwussa@nanotec.or.th

Supplementary Material

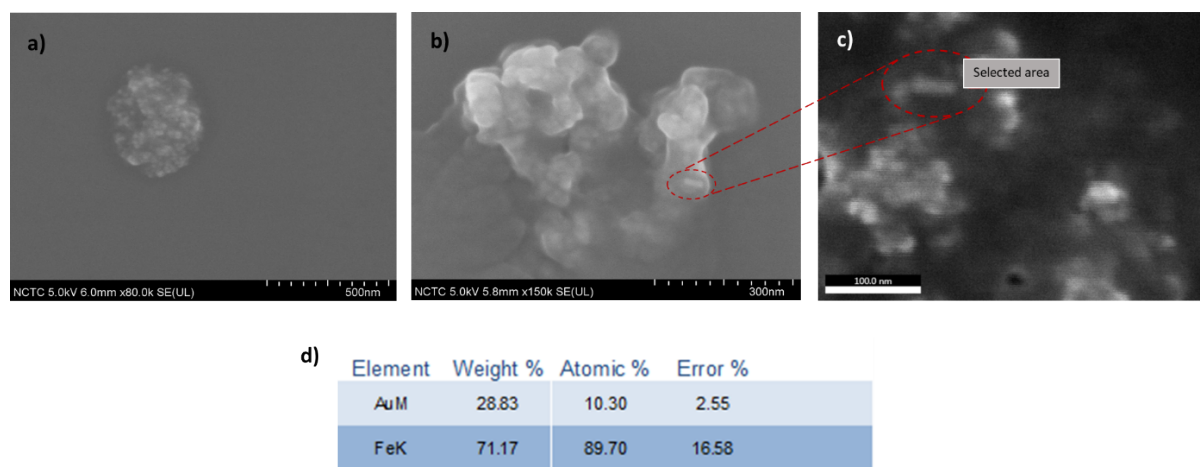


Fig. S1 (a) SEM image of the separated MNP from the negative control without miR-29a (b) SEM image of the MNP-miRNA-SERS tag sandwich complex in the presence of the target miR-29a (c) The magnified image of SERS tag attached on the MNP surface indicating the sandwich complex formation (d) The EDX analysis identified the main elements of the selected area