

## Supplementary file 1

doi:10.34172/bi.33180

# Targeted delivery of doxorubicin using RSV F-protein modified breast cancer-derived exosomes in breast cancer-bearing mice

Narges Mardi<sup>1,2</sup>, Amir Zarebkohan<sup>3</sup>, Cigir Biray-Avci<sup>4</sup>, Reza Rahbarghazi<sup>5</sup>, Mehdi Talebi<sup>5,6</sup>, Hamid Lotfimehr<sup>5</sup>, Sharareh Khavandkari<sup>7</sup>, Zahra Abbasi-Malati<sup>5</sup>, Nastaran Sedghi-Samarkhazan<sup>8</sup>, Elham Shahriyari<sup>4</sup>, Asghar Khalilnezhad<sup>4</sup>, Morteza Milani<sup>1\*</sup>, Mohammad Nouri<sup>1\*</sup>

<sup>1</sup>Department of Medical Biotechnology, Faculty of Advanced Medical Sciences, Tabriz University of Medical Sciences, Tabriz, Iran

<sup>2</sup>Biotechnology Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

<sup>3</sup>Department of Medical Nanotechnology, Faculty of Advanced Medical Sciences, Tabriz University of Medical Sciences, Tabriz, Iran

<sup>4</sup>Department of Medical Biology, Faculty of Medicine, Ege University, Izmir, Turkey

<sup>5</sup>Department of Applied Cell Sciences, Faculty of Advanced Medical Sciences, Tabriz University of Medical Sciences, Tabriz, Iran

<sup>6</sup>Hematology and Oncology Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

<sup>7</sup>Department of Animal Biology, Faculty of Natural Sciences, University of Tabriz, Tabriz, Iran

<sup>8</sup>Department of Biology, Faculty of Science, University of Guilan, Rasht, Iran

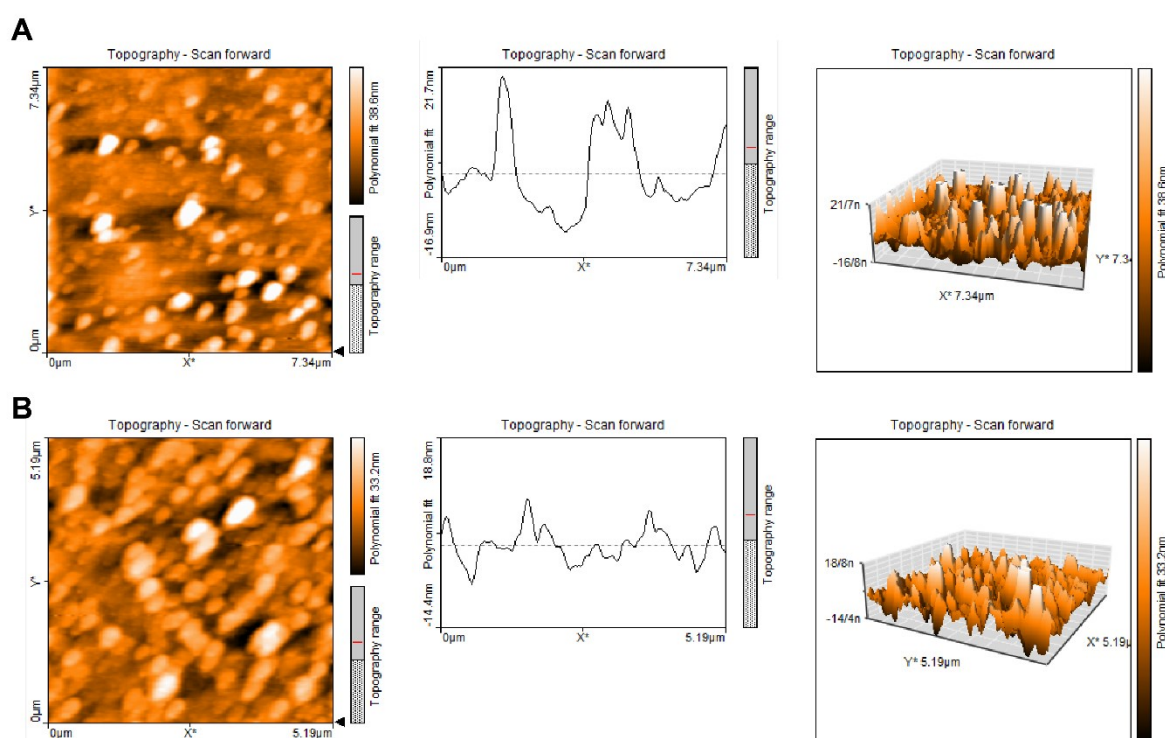
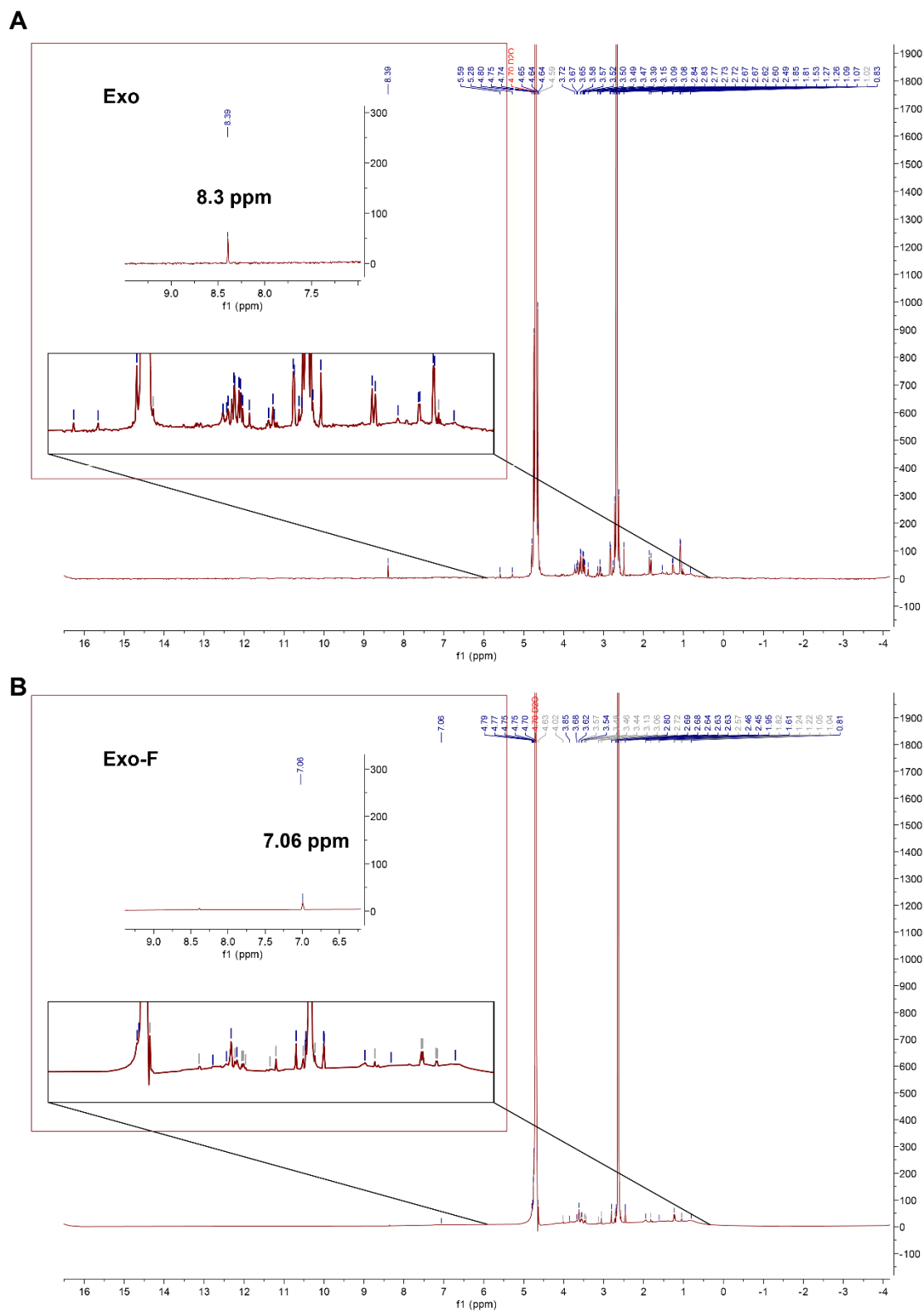
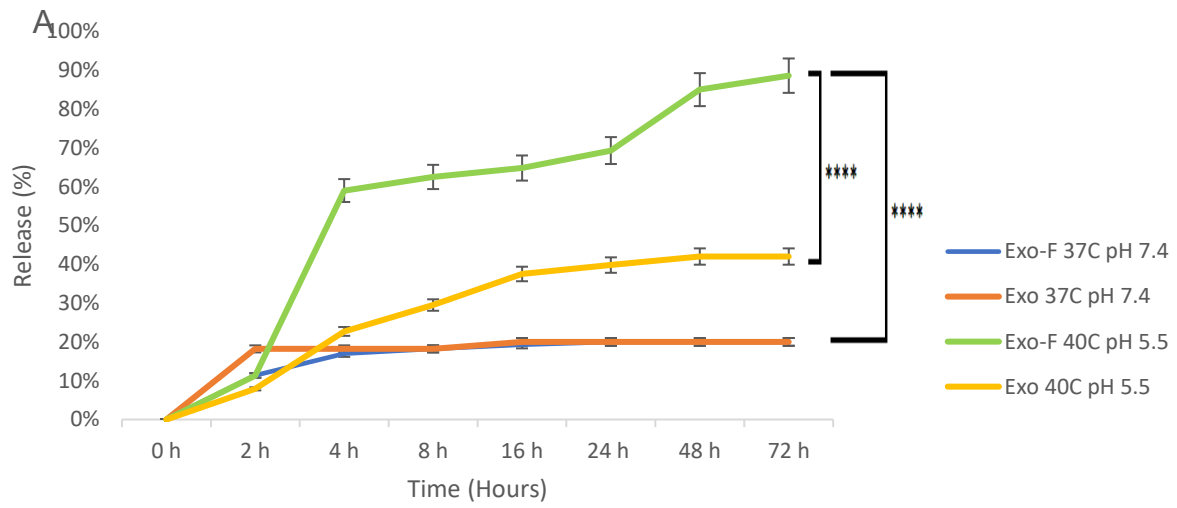


Figure S1: The AFM images of A) F-protein modified and B) pristine exosomes.



**Figure S2.** Physicochemical characterization of different nano-formulated exosome groups: **(H)** the complete NMR spectra of pristine exosome **(A)** and F-protein modified exosomes **(B)**.



**Figure S3.** The in vitro drug release profile of Dox from Exo and Exo-F groups during over 72 h at under different conditions: at pH 7.4 and pH 5.5, also at 37 °C and 40 °C. and Data are presented as 37 °C. mean  $\pm$  SD, n = 3, \*\*\*\*p < 0.0001.