Title: STK899704 inhibits stemness of cancer stem cells and migration via the FAK-MEK-ERK pathway in HT29 cells

Author's name: Hui-Ju Jang<sup>1</sup>, Yesol Bak<sup>1</sup>, Thu-Huyen Pham<sup>1</sup>, Sae-Bom Kwon<sup>1</sup>, Bo-Yeon Kim<sup>2</sup>, JinTae Hong<sup>3</sup>, Do-Young Yoon<sup>1, \*</sup>

## Affiliation:

<sup>1</sup> Department of Bioscience and Biotechnology, Konkuk University, Seoul 05029, Republic of Korea

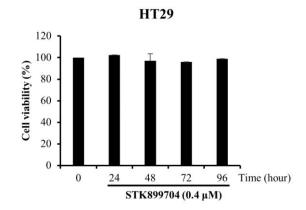
<sup>2</sup> World Class Institute, Anticancer Agents Research Center, Korea Research Institute of Bioscience and Biotechnology, 30 Yeongudanji-ro, Ochang, Chungbuk 28116, Republic of Korea

<sup>3</sup> College of Pharmacy and Medical Research Center, Chungbuk National University, 194-31 Osongsaengmyeong 1-ro, Osong-eup, Heungduk-gu, Cheongju, Chungbuk 361-951, Republic of Korea

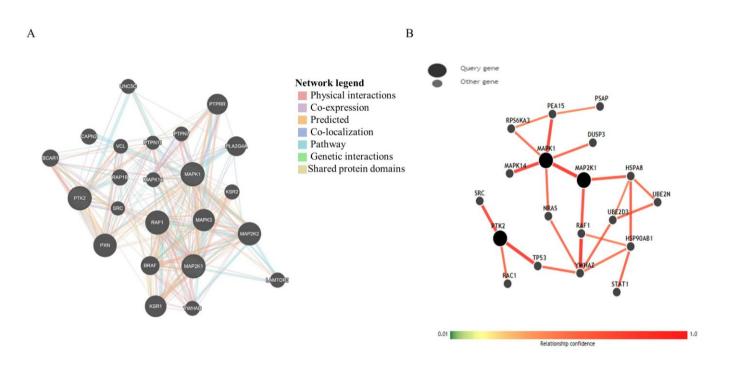
Running Title: Effects of STK899704 in colon cancer cells

Keywords: STK899704, colon cancer, migration, cancer stem cell, focal adhesion kinase

**Corresponding Author Information:** \*Do-young Yoon, Professor of Bioscience and Biotechnology, Konkuk University, Republic of Korea, 120 Neungdong-ro, Gwangjin-gu, Seoul 05029, Republic of Korea, Tel: (+82) 2 450 4119; Fax: +82-2-444-4218; E-mail: ydy4218@konkuk.ac.kr.



**Supplemental Fig. 1.** Effects of STK899704 on cell viability in HT29 colon cancer cells. Viability of HT29 cells treated with STK899704 was assessed at different time point using an MTS assay.



**Supplemental Fig. 2.** Network analysis of FAK/MEK/ERK. Gene network was explored using GIANT. (A) The type of networks between FAK, MEK and ERK by GeneMANIA. (B) The connection images of FAK with MEK and ERK were collected and related gene pathway analysis was performed with GIANT. PTK2 = protein tyrosine kinase 2, also known as FAK; MAP2K1 = mitogen-activated protein kinase kinase 1, also known as MEK1/2; MAPK1 = mitogen-activated protein kinase 1, also known as ERK1/2.