Potent Small-Molecule Inhibitors Targeting Acetylated Microtubules as Anticancer Agents Against Triple-Negative Breast Cancer

Ahreum Kwon 1,†, Gwi Bin Lee 2, Taein Park 2, Jung Hoon Lee 3, Panseon Ko 4, Eunae You 4, Jin Hee Ahn 2, Soo Hyun Eom 2, Sangmyung Rhee 4* and Woo Keun Song 1,*

1 Cell Logistics and Silver Health Research Center, School of Life Sciences, Gwangju Institute of Science and Technology, Gwangju 61005, Korea; kar3189@gist.ac.kr
2 Department of Chemistry, Gwangju Institute of Science and Technology, Gwangju 61005, Korea; hshmhshm@gist.ac.kr (G.B.L.); taeinpark@gist.ac.kr (T.P.); jhahn@gist.ac.kr (J.H.A.); eom@gist.ac.kr (S.H.E.)
3 Department of Biochemistry and Cell Biology, Geisel School of Medicine, Dartmouth College, Hanover, NH 03755, USA; Junghoon.Lee.Gr@dartmouth.edu
4 Department of Life Science, Chung-Ang University, Seoul 06974, Korea; kpskoh@hotmail.com (P.K.); yeai08@naver.com (E.Y.)
* Correspondence: Sangmyung.rhee@cau.ac.kr (S.R.); wksong@gist.ac.kr (W.K.S);
Tel.: +82-62-715-2560 (S.R.); Tel.: +82-2-820-5818 (W.K.S)
Supplementary Figure S1 (A) Schematic flowchart for small chemical compound screening. (B) Acetyl-histone-H3 and total H3 expression in MDA-MB-231 cell lysates treated with GM-90631. (C) Fluorescence microscopy images showing microtubule bundles or β-tubulin and acetyl-α-tubulin in MDA-MB-231 cells after treatment with GM-90257 (500 nM) and GM-90631 (50 nM).

Supplementary Figure S2 (A) Photographs of mice after treatment with 25 mg/kg GM-90257 for 15 days. (B) The weight of mice showed no significant changes during treatment with GM-90257 (top) and GM-90631 (bottom). (C) Photographs of harvested tumors at the end of drug administration.