

Small molecule HSP27 inhibitor abolishes androgen receptor in glioblastoma

Yaxin Li^a, Cody M. Orahoske^a, Werner J. Geldenhuys^b, Asmita Bhattarai^c, Abboud Sabbagh^a,
Viharika Bobba^a, Fatma M. Salem^a, Wenjing Zhang^a,
Girish C. Shukla^c, Justin D. Lathia^{dc}, Bingcheng Wang^e, Bin Su^{a*}

^aDepartment of Chemistry, Center for Gene Regulation in Health and Disease, College of Sciences and Health Professions, Cleveland State University, 2121 Euclid Ave., Cleveland, OH, 44115, USA

^bDepartment of Pharmaceutical Sciences, School of Pharmacy, West Virginia University, Morgantown, WV, 26506, USA

^cDepartment of Biological, Geological, and Environmental Sciences, Center for Gene Regulation in Health and Disease, College of Sciences and Health Professions, Cleveland State University, 2121 Euclid Ave., Cleveland, OH, 44115, USA

^d Department of Molecular Medicine, Lerner Research Institute, Cleveland Clinic, and Case Comprehensive Cancer Center, Cleveland, OH, 44195, USA

^eRammelkamp Center for Research and Department of Medicine, MetroHealth Campus, Case Comprehensive Cancer Center, Case Western Reserve University School of Medicine, Cleveland, OH, 44109, USA

HPLC analysis of the purity of the compounds. Reversed-phase HPLC analysis of compounds **I-IV**, were conducted on Beckman HPLC system with Auto Sampler. The chromatographic separation was performed on a C18 column (2.0 mm × 150 mm, 5 μm) from Phenomenex (Torrance, CA, USA). Two mobile phases were employed for isocratic elution with a flow rate of 0.2 mL/min. The injection volume was 20 μL and the UV detector was set up at 256 and 290 nm.

H ₂ O/CH ₃ OH (20%/80%)		H ₂ O/CH ₃ CN (25%/75%)		
Compound	Retention time (R _t) in minutes	Purity	Retention time (R _t) in minutes	Purity
I	3.43	98.11%	3.27	98.65%
II	3.72	97.93%	3.53	99.02%
III	4.00	98.05%	3.68	99.17%
IV	4.47	98.59%	4.03	99.31%