

Supplementary File

Eco-Friendly Preparation of Silver Nanoparticles and Their Antiproliferative and Apoptosis-Inducing Ability against Lung Cancer

Vivekananthan Suseela ^{1,*}, Ramalingam Nirmaladevi ², Muthukrishnan Pallikondaperumal ³, Ramasamy Shanmuga Priya ³, Mohammed Rafi Shaik ⁴, Althaf Hussain Shaik ⁵, Mujeeb Khan ⁴ and Baji Shaik ^{6,*}

- 1 Department of Biochemistry, P.S.G College of Arts and Science, Coimbatore 641014, Tamilnadu, India
 - 2 Department of Biochemistry, Biotechnology and Bioinformatics, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore 641043, Tamilnadu, India; nirmaladevisaravanan32@gmail.com
 - 3 Department of Microbiology, P.S.G College of Arts and Science, Coimbatore 641014, Tamilnadu, India; pmamatrixschool@gmail.com (M.P.); priyajasper@gmail.com (R.S.P.)
 - 4 Department of Chemistry, College of Science, King Saud University, P.O. Box 2454, Riyadh 11451, Saudi Arabia; mrshaik@ksu.edu.sa (M.R.S.); kmujeeb@ksu.edu.sa (M.K.)
 - 5 Department of Zoology, College of Science, King Saud University, P.O. Box 2454, Riyadh 11451, Saudi Arabia; salthaf@ksu.edu.sa
 - 6 School of Chemical Engineering, Yeungnam University, Gyeongsan 38541, Republic of Korea
- * Correspondence: suseelavivek@gmail.com (V.S.); shaikbaji@yu.ac.kr (B.S.)

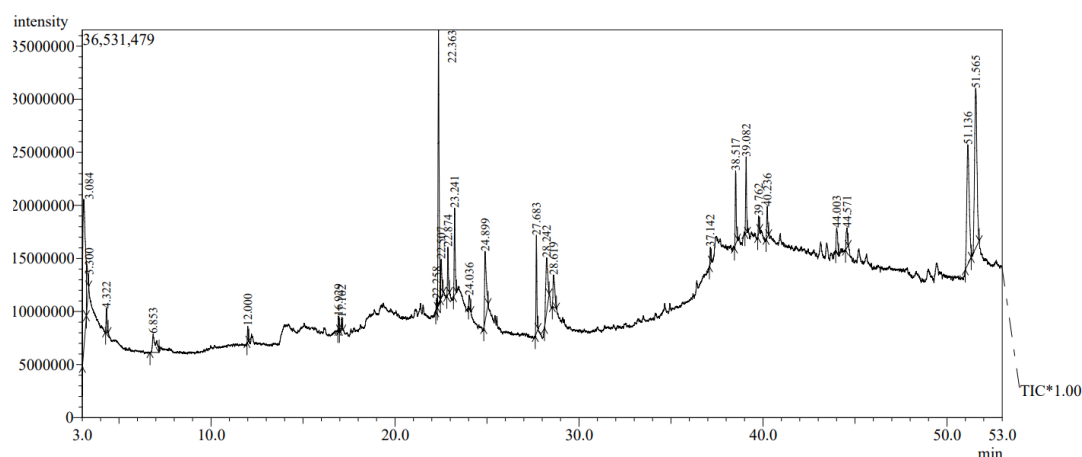


Figure S1: GC-MS analysis of ethanolic extract of *Tabebuia rosea-alba* leaves [1].

Table S1: Bioactive Constituents Identified in the Ethanolic Extract of *Tabebuia rosea- alba* Leaves by GC-MS Analysis [1].

RT	Molecular formula	Molecular weight	Name of the compound
22.367	C ₂₀ H ₄₀ O	296	2-hexadecen-1-ol 3,7,11,15,-tetramethylhexadec-2-en-1-ol 3,7,11,15-tetramethyl-2-hexadecen-1-ol
22.508	C ₂₀ H ₄₀	280	2-hexadecene 3,7,11,15-tetramethyl-[R-[R*R*-(E)] 3,7,11,15-tetramethyl-2-hexadecene
24.900	C ₁₈ H ₃₄ O ₂	282	9-octadecenoic acid (Z) octadec-9-enoic acid
27.683	C ₂₀ H ₄₀ O	296	Phytol 2-hexadecen-1-ol trans – Phytol 3,7,11,15-tetra methyl-2-hexadecen-1-ol
28.242	C ₂₀ H ₃₄ O ₂	306	8,11,14- eicosatrienoic acid (Z,Z,Z)

39.083	C ₃₀ H ₅₀	410	Squalene 2,6,10,14,18,22-tetracosahexaene Spinacene
51.136	C ₂₉ H ₅₀ O	414	Stigmast-5-en-3-ol (3.BETA.,24S) stigmast-5-en-3-ol Beta-Sitosterol Stigmast-5-en beta-ol Alpha-dihydrofucosterol
51.567	C ₂₉ H ₅₀ O	414	Stigmast-5-en-3-ol (3.BETA.,24S) stigmast-5-en-3-ol

Table S2: Biological Activities of the Phytoconstituents Identified in the Ethanolic Extract of *Tabebuia rosea-alba* Leaves by GC-MS Analysis [1].

% Area	Name of the compound	Biological activity**
12.57	2-hexadecen-1-ol 3,7,11,15,-tetramethylhexadec-2-en-1-ol 3,7,11,15-tetramethyl-2-hexadecen-1-ol	Antimicrobial, Anticancer, Anti-inflammatory, Diuretic
2.01	2-hexadecene 3,7,11,15-tetramethyl-[R-[R*R*-(E)] 3,7,11,15-tetramethyl-2-hexadecene	Transplant rejection treatment, Anticarcinogenic, Multiple sclerosis treatment, Gaucher disease treatment, Metabolic disease treatment.
5.18	9-octadecenoic acid (Z) octadec-9-enoic acid	Cancer preventive, Flavor, Hypocholesterolemic, 5-Alpha reductase inhibitor, Antiandrogenic, Perfumery, Insectifuge, Anti-inflammatory, Anemiagenic, Dermatitigenic, Choleric.
3.54	Phytol 2-hexadecen-1-ol trans – Phytol 3,7,11,15-tetra methyl-2-hexadecen-1-ol	Pesticide, Perfumery, Anti-feedent, Haepato protective, Anti-inflammatory, Analgesic, Antibacterial activity.
4.80	8,11,14- eicosatrienoic acid (Z,Z,Z)	Cardio protective, Hypocholesterolemic, Anticancer, Anticoronary.
2.85	Squalene 2,6,10,14,18,22-tetracosahexaene Spinacene	Antibacterial, Antitumor, Antioxidant, Immunostimulant, Hypocholesterolemic, Lipoxygenase-inhibitor.
12.42 and 16.21	Stigmast-5-en-3-ol (3.BETA.,24S) stigmast-5-en-3-ol Beta-Sitosterol Stigmast-5-en beta-ol Alpha-dihydrofucosterol	Cytotoxicity against human, Diuretic, Hepatoprotective, Anti-microbial, Anti- inflammatory, Anticancer, Antiasthma.

**Source: Dr. Duke's phytochemical and ethnobotanical databases (Online database).

Reference:

1. Suseela, V.; Nirmaladevi, R. Quantitative Phytochemical Screening and GC-MS Analysis of the Ethanolic Extract of *Tabebuia roseo-alba* (Ridl) Sand. *Indian J. Nutr. Diet.* **2021**, *58*, 317–325.