

Supplementary Materials:

Supplementary Materials Table S1. Thin Layer Chromatography (TLC) profile of the ethyl acetate fractions of *A. nilotica* (L.) showing the color characteristic and retention factor (R_f) of the spots.

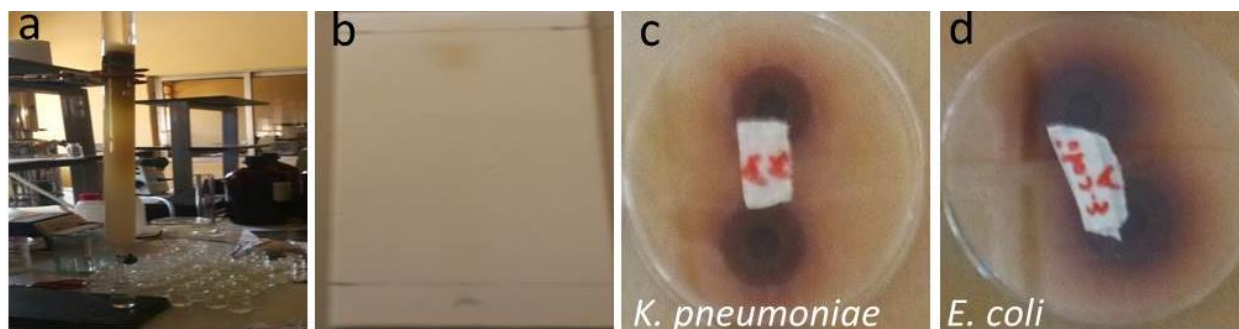
Fraction (spot)	Color	R _f
1	Orange	0.81
2	Green	0.48
3	Brown	0.61
4	Yellow	0.74
5	Black	0.39

Supplementary Materials Table S2. Comparison of the ¹³C NMR spectral data of fraction 1 (acetyleneugenol) obtained from the ethyl acetate extract fractionation of *A. nilotica* (L.) with literature and theoretical values.

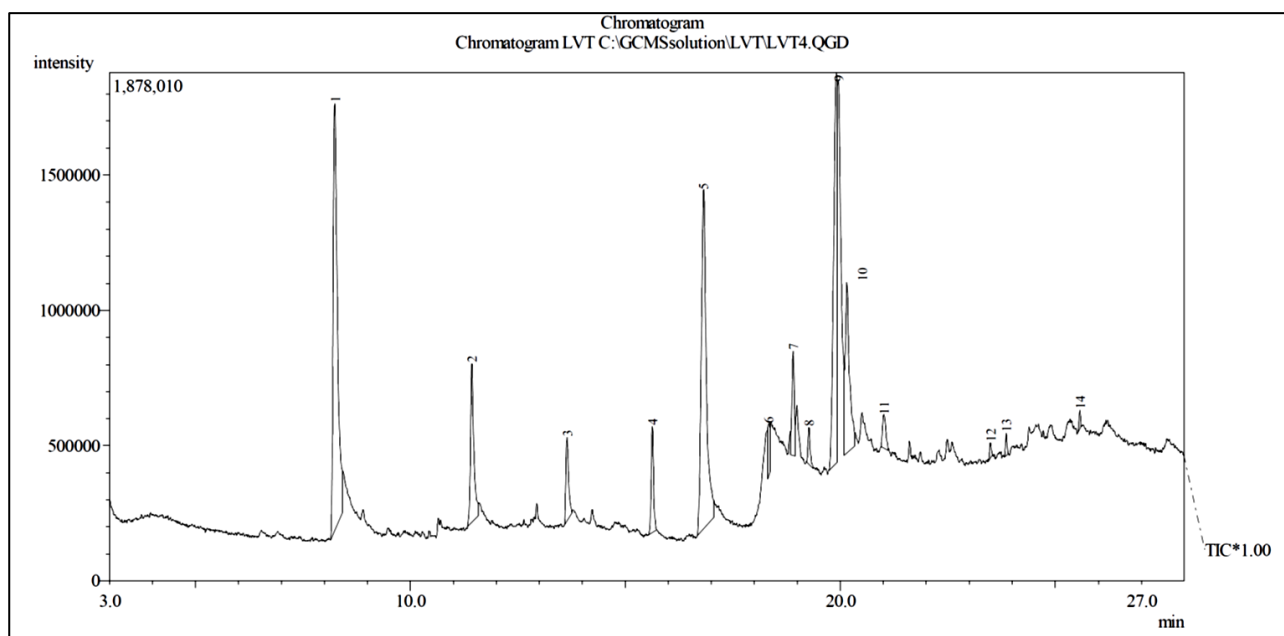
Carbon position	¹³ C-NMR (δ-ppm)		
	Experimental	Literature [1]	Theoretical [2]
C1	138.83	139.05	138.2
C2	166.78	150.88	151.0
C3	52.06	112.73	112.8
C4	146.00	138.00	137.5
C5	108.83	120.69	120.5
C6	119.67	122.53	122.6
C7	40.29	55.84	39.9
C8	130	40.12	137.6
C9	100	137.06	115.6
C10	40.53	116.19	56.2
C11	171.83	169.28	168.6
C12	39.27	20.71	20.8

References:

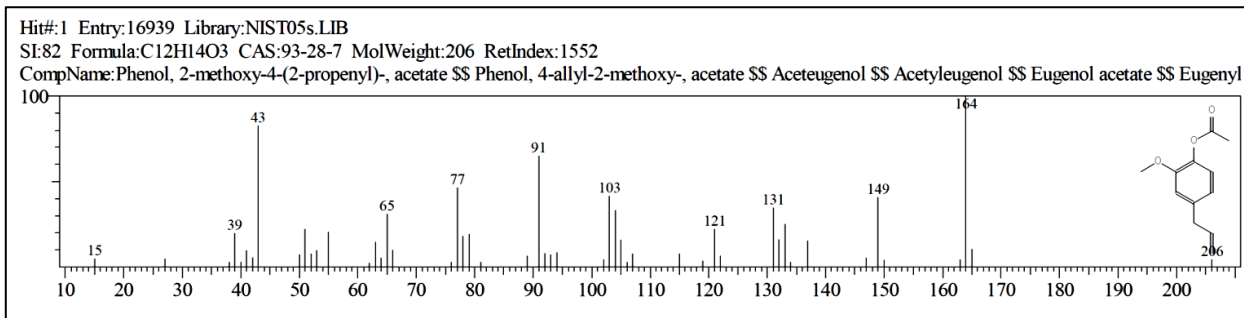
1. Banfi, D.; Patiny, L. www.nmrdb.org: resurrecting and processing NMR spectra on-line. *Chimia*, **2008**; 62: 280–281.
2. Lazarevic, J.; Kolarevic, A.; Stojanovic, G.; Smelcerovic, A.; Ciuffred, P.; Santaniello, E. Synthesis, antimicrobial activity and *in silico* studies on eugenol eters. *Acta Chim Slov*, **2018**; 65:801–810. <https://doi.org/10.17344/acsi.2018.4380>.



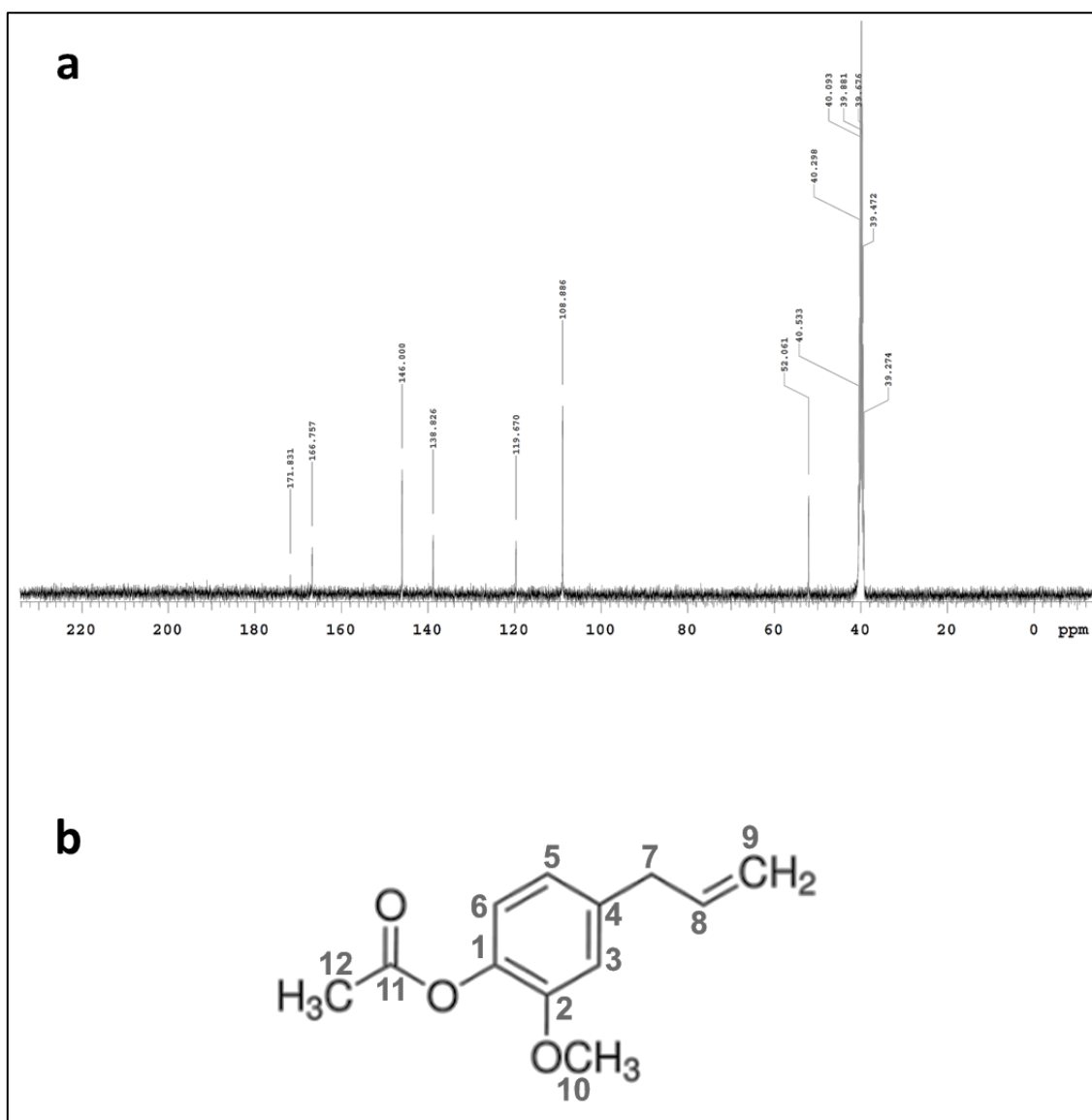
Supplementary Materials Figure S1. Phytochemical and antibacterial screening. A) Column setup for the separation and B) purification of TLC fractions from *A. nilotica* (L.). C,D) show the antibacterial sensitivity assay with clear inhibition zones against some of the isolates, C) *K. pneumoniae* and D) *E. coli* for the fractions obtained from the TLC and column purification.



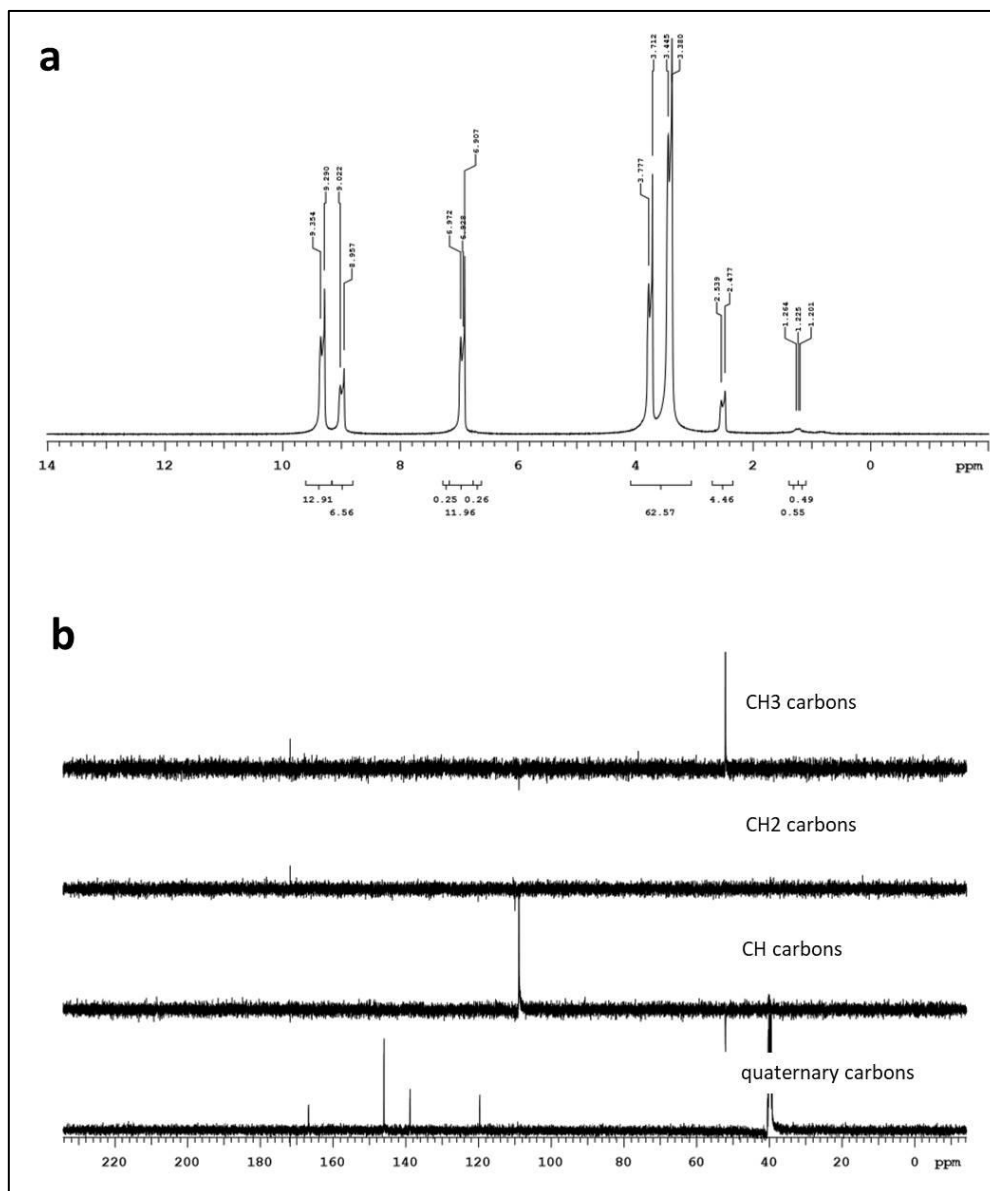
Supplementary Materials Figure S2. GC-MS analysis of acetylugenol (Fraction-I) of the acetyl acetate extraction from *A. nilotica* (L.).



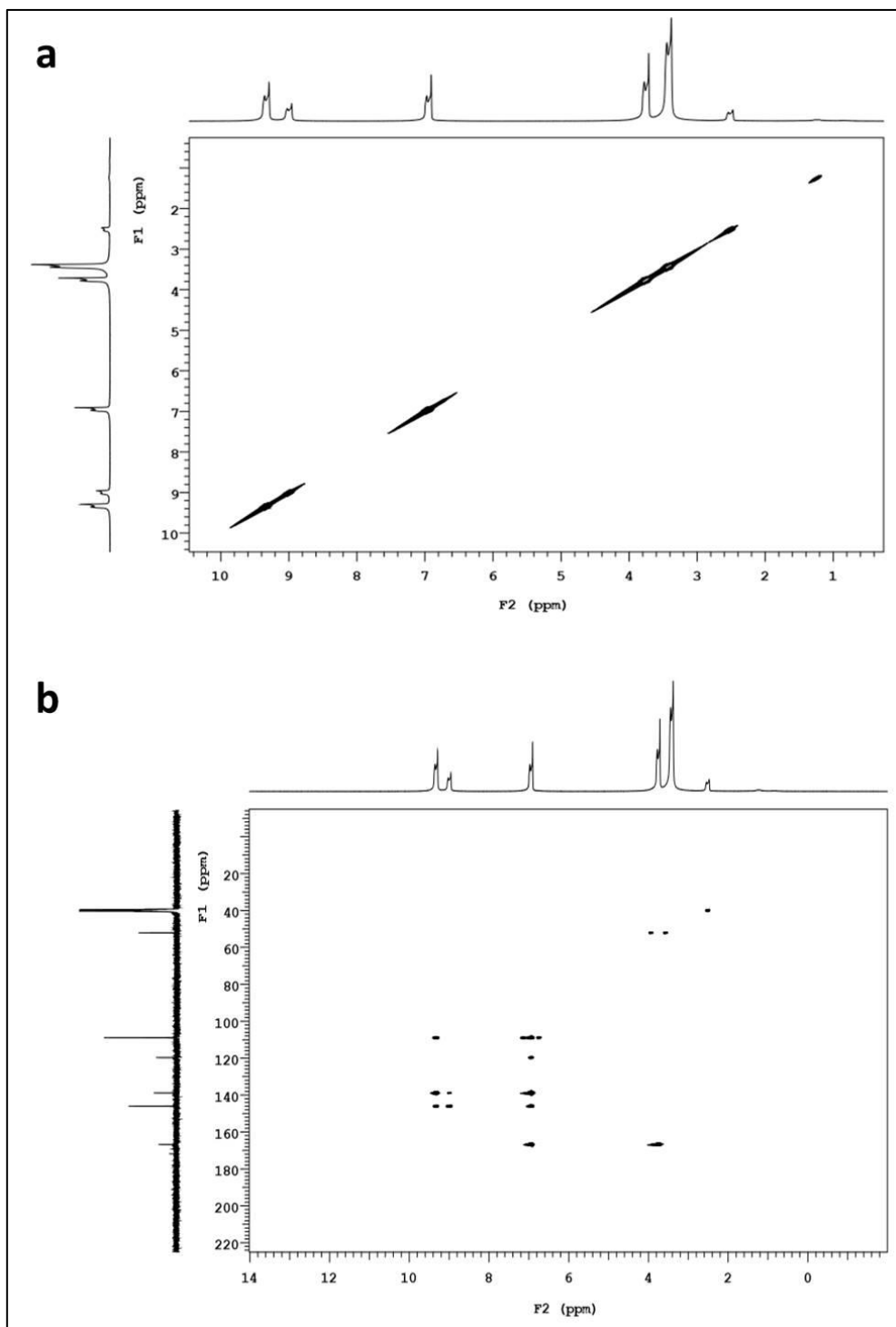
Supplementary Materials Figure S3. Showing the GC-MS spectral comparison of the major compound in subgroup 1 (peak 1) with the first hit of the NIST search library indicating that the compound is acetyeugenol.



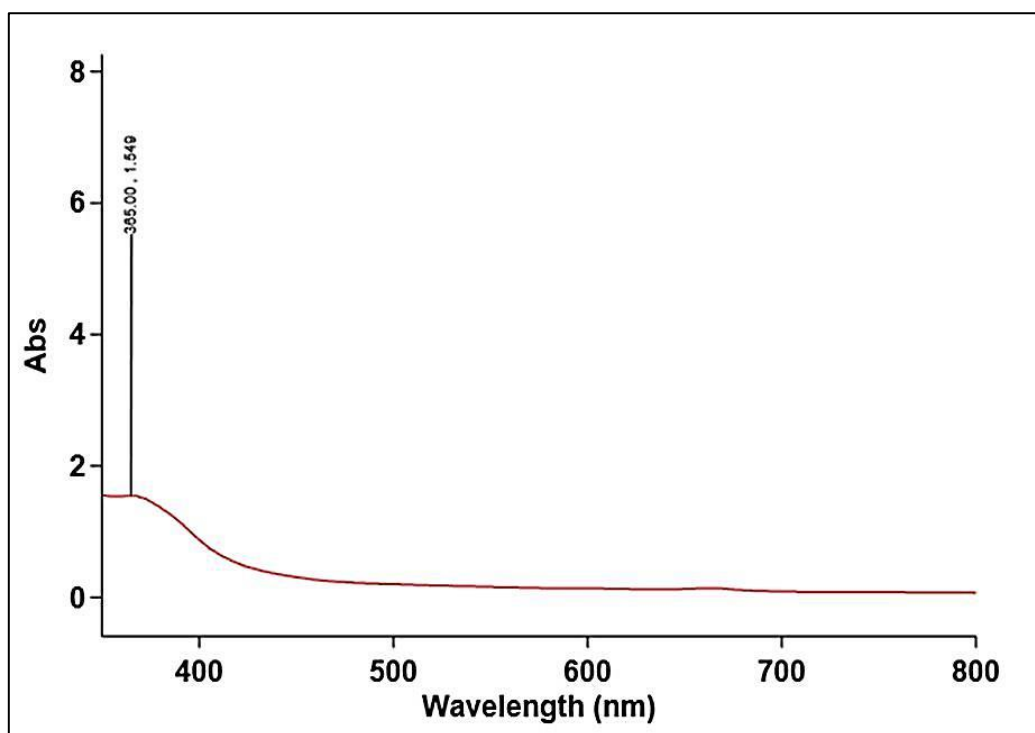
Supplementary Materials Figure S4. a) ^{13}C -NMR spectrum of the acetyeugenol compound revealing the total number of carbon signals and b) its molecular structure showing the carbon position.



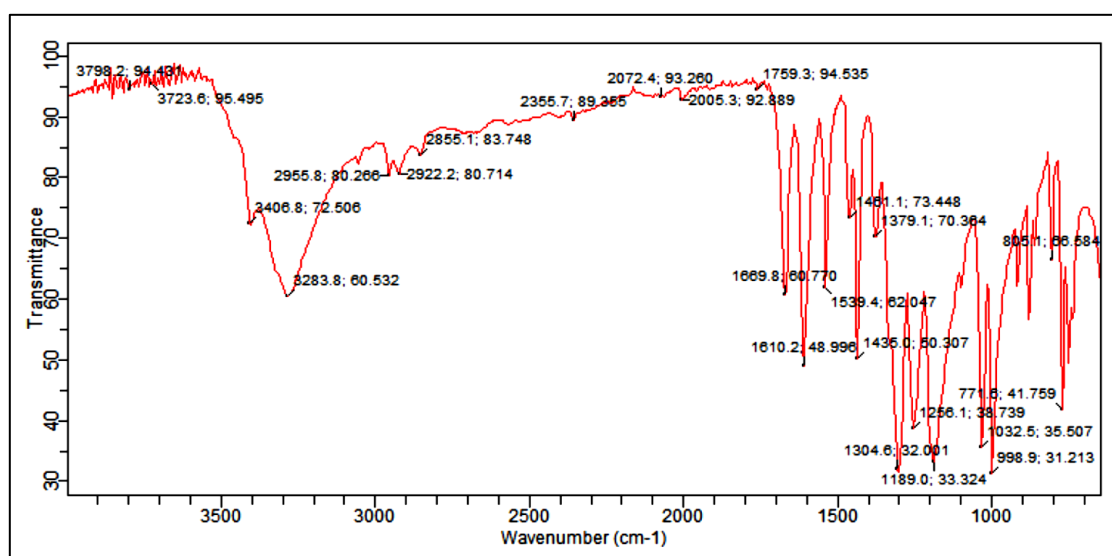
Supplementary Materials Figure S5. ¹H NMR and the DEPT experiment of acetylugenol compound. a) the proton NMR spectrum of compound 1 revealing the presence of the de-shielded protons between δ 9.3 and 9.02 ppm and the protons of various methyl and methylene groups. b) the DEPT spectrum revealing the presence of methyl, methylene, methine and quaternary carbon signals.



Supplementary Materials Figure S6. a) The 2D COSY correlation of acetylugenol showing the correlation between the protons within the compounds and b) showing the HMBC spectrum showing the correlation between the protons and carbons in the compound.



Supplementary Materials Figure S7. The UV-Visible spectrum of Fraction I (acetylenol) from the ethyl acetate fraction of *Acacia nilotica* extract.



Supplementary Materials Figure S8. FT-IR analysis of the acetylenol compound of the acetyl acetate fractionation from *A. nilotica* (L.).