

(a)



(b)

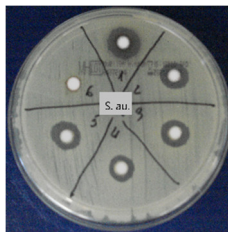


(c)

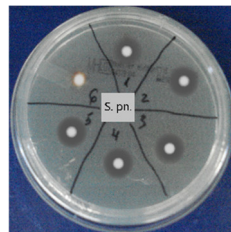


(d)

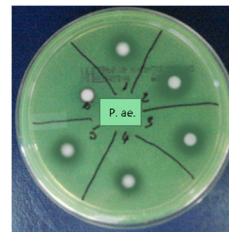
**Figure S1.** (a). *U. barbata* fluid extracts: A. *mUBW*, B. *mUBA*, C. *mUBE*; (b-d) *U. barbata* dry extracts: (b) *dUBW*, (c) *dUBA*, (d) *dUBE*.



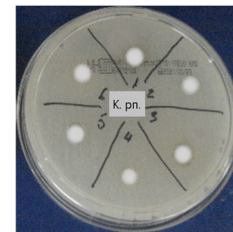
(a)



(b)

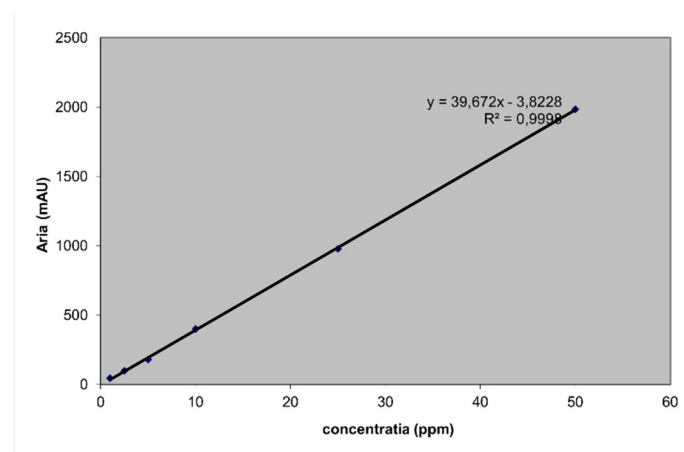


(c)

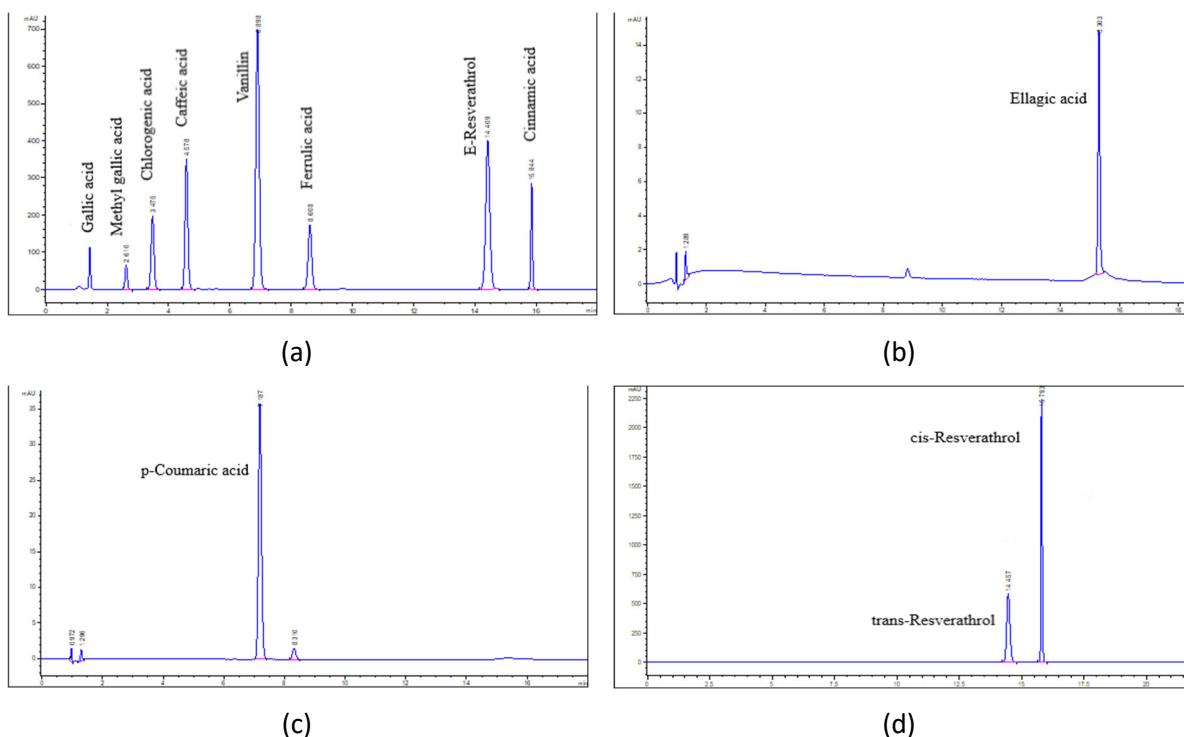


(d)

**Figure S2.** Antibacterial activity of usnic acid (1) and *U. barbata* extracts: *mUBA* (2), *dUBA* (3), *mUBE* (4), *dUBE* (5), *mUBW* (6), on *S. aureus* (a), *S. pneumoniae* (b), *P. aeruginosa* (c), *K. pneumoniae* (d).



**Figure S3.** Calibration curve for usnic acid



**Figure S4.** Polyphenols standards: mixture (a), ellagic acid (b), p-coumaric acid (c), cis-resveratrol and trans-resveratrol (d).

**Table S1.** Concentration, retention time, and correlation coefficient ( $R^2$ ) values for all phenolic standards used in the HPLC-DAD method

Phenolic compound	Concentration (mg/mL)	Retention Time (min)	$R^2$
<i>trans</i> -Resveratrol (E)	0.22	14.467 ± 0.017	0.999
<i>cis</i> - Resveratrol (Z)	0.37	15.751 ± 0.058	0.997
Chlorogenic acid	0.37	3.501 ± 0.015	0.999
Caffeic acid	0.36	4.598 ± 0.036	0.996
Cinnamic acid	0.58	15.867 ± 0.007	0.998
Vanillin	0.42	6.919 ± 0.051	0.996
Gallic acid	0.39	0.990 ± 0.025	0.995
Ferrulic acid	0.38	8.565 ± 0.058	0.998
Ellagic acid	0.40	15.303 ± 0.027	0.998
<i>p</i> -Coumaric acid	0.41	7.187 ± 0.019	0.997
3 - Methyl gallic acid	0.51	2.606 ± 0.008	0.995