

ABBREVIATIONS

¹H-NMR	Proton nuclear magnetic resonance
¹³C-NMR	Carbon nuclear magnetic resonance
1D-IR	One-dimensional infrared
2D-IR	Two-dimensional infrared
ANN	Artificial neural networks
ANOVA	Analysis of variance
Ar	Aromatic compounds
Arb	Arbitrary
ATCC	American Type Culture Collection
ATP	Adenosine triphosphate
C₆H₆	Benzene
CaSki	Cervical epidermoid carcinoma cell line
CHCl₃	Chloroform
CID	Collision-induced dissociation
CE	Capillary electrophoresis
CE-DAD	Capillary electrophoretic coupled with diode array
CE-MS	Capillary electrophoresis-mass spectrometry
CFU	Colony-forming unit
CG	Galloylated cyanogenic glucosides
CH₃	Methyl
CH₂O	Formaldehyde
CO₂	Carbon dioxide
COSY	Correlation spectroscopy
DCA	Drug control authority
DEPT	Distortionless enhancement by polarization transfer
DMEM	Dulbecco's modified eagle medium
DMSO	Dimethyl sulfoxide
DNA	Deoxyribonucleic acid
DQF-COSY	Double-quantum filtered correlation spectroscopy
DTGS	Deuterated triglycine sulphate

DU145	Prostate cancer cells
ED	Ellagic acid derivatives
EDA	Exploratory data analysis
EMEA	European medicines agency
ESI-MS	Electrospray ionization mass spectroscopy
ESI-MSⁿ	Tandem electrospray ionization mass spectrometry
ET	Ellagitannins
F	Fraction
FBS	Fetal bovine serum
FeCl₃	Iron (III) chloride
FRIM	Forest Research Institute Malaysia
FTIR	Fourier transform infrared
FTIR-ATR	Fourier transform infrared-attenuated total reflectance
FTMS	Fourier transform mass spectrometry
G	Galloyl
GC	Gas chromatography
GMP	Good Manufacturing Practice
GT	Gallotannins
H	Proton
H₂O	Hydrogen oxide (water)
H₂O₂	Hydrogen peroxide
HAT	Hypoxanthine aminopterin thymidine
HACA	Hierarchical agglomerative cluster analysis
HCA	Hierarchical clustering analysis
HCN	Hydrogen cyanide
HCOOH	Formic acid
HCOOEt	Ethyl formate
HCT 116	Colon carcinoma cell line
HETCOR	Heteronuclear correlation experiment
HHDP	Hexahydroxydiphenic acid
HIV	Human immunodeficiency virus
HL-60	Human promyelocytic leukemia cell line

HMBC	Heteronuclear multiple bond correlation
HMG-CoA	3-Hydroxy-3-methylglutaryl Co-enzyme A
HMQC	Heteronuclear multiple quantum coherence
HPLC	High performance liquid chromatography
HPLC-DAD	High performance liquid chromatography-diode array detector
HPLC-DAD-MS	High performance liquid chromatography-diode array detection-mass spectrometry
HPLC-MS	High performance liquid chromatography-mass spectrometry
HPLC-UV	High performance liquid chromatography-ultraviolet
<i>H. pylori</i>	<i>Helicobacter pylori</i>
H₂SO₄	Sulfuric acid
IC₅₀	50% inhibition concentration
INEPT	Insensitive nuclei enhanced by polarization transfer
IR	Infrared
KBr	Potassium bromide
KNN	<i>K</i> nearest neighbors
LCCs	Lignin-carbohydrates complexes
LC-ESI-MSⁿ	Liquid chromatography-electrospray ionisation tandem mass spectrometry
LC-MS	Liquid chromatography-mass spectrometry
LC-NMR	Liquid chromatography coupled with nuclear magnetic resonance
LDA	Linear discriminant analysis
LTQ	Linear trap quadrupole
MCF 7	Breast carcinoma cell line
MeOH	Methanol
MHB	Mueller-hinton broth
MIC	Minimum inhibition concentration
MRFA	Met-arg-phe-ala tetrapeptide
MRSA	Methicillin-resistant <i>Staphylococcus aureus</i>
MSSA	Methicillin-sensitive <i>Staphylococcus aureus</i>
MS	Mass spectrometry
MS²	Mass spectrometry/mass spectrometry

MS³	Mass spectrometry/mass spectrometry/mass spectrometry
MSⁿ	Tandem mass spectrometry
MSC	Multiplicative scatter correction
MTT	3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide
<i>m/z</i>	Mass over charge ratio
Na	Sodium
NG108-15	Neuroblastoma clone N18TG-2 and glioma clone C6 BV-1 hybridoma cells
NH₄	Ammonium
NIR	Near-infrared
NMR	Nuclear magnetic resonance
NOESY	Nuclear overhauser effect spectroscopy
O₂	Oxygen
O₂^{•-}	Superoxide anion
OH[•]	Hydroxyl radical
OMe	Methoxy
OPLS-DA	Orthogonal projections to latent structures–discriminant analysis
PBS	Phosphate buffered saline
PC	Principal component
PCA	Principal component analysis
PLS	Partial least squares
PLS-DA	Partial least squares–discriminant analysis
PNN	Probabilistic neural networks
PPLAM	<i>P. praetermissa</i> from Ampang Forest Reserve
PPLLA	<i>P. praetermissa</i> from Bukit Lagong
PPLPA	<i>P. praetermissa</i> from Pasoh Forest Reserve
ppm	Part per million
PRLPA	<i>P. rotundifolia</i> from Pasoh Forest Reserve
PRLSB	<i>P. rotundifolia</i> from Sungai Batang, Labis Forest Reserve
PRLTM	<i>P. rotundifolia</i> from Takar Melor, Labis Forest Reserve
PTFE	Polytetrafluoroethylene
ROESY	Rotating-frame overhauser effect spectroscopy

ROS	Reactive oxygen species
RP	Reversed phase
RPMI-1640	Roswell Park Memorial Institute medium
RRLC-MS	Rapid resolution liquid chromatography-mass spectrometry
SA	Similarity analysis
SAR	Structural-activity relationship
SE	Standard error
SFDA	State Food and Drug Administration
SIMCA	Soft independent modeling of class analogy
SK-HEP-1	Human adenocarcinoma cell line
TLC	Thin layer chromatography
TOCSY	Total correlation spectroscopy
UPLC	Ultra high performance liquid chromatography
UPLC-ELSD	Ultra performance liquid chromatography-evaporative light scattering detector
UPLC-MS	Ultra performance liquid chromatography-mass spectrometry
UPLC-PAD	Ultra performance liquid chromatography-photodiode array detector
UPLC-UV	Ultra performance liquid chromatography-ultraviolet
UPLC-UV-MS	Ultra performance liquid chromatography-ultraviolet- mass spectrometry
UV	Ultraviolet
WHO	World Health Organization