

ALKALOIDS ISOLATED FROM *ALSEODAPHNE CORNERI*

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ABBREVIATIONS

α	alfa
β	Beta
δ	Chemical shift
Kg	kilogram
ppm	Parts per million
CHCl ₃	Chloroform
CH ₂ Cl ₂	Dichloromethane
ml	Milliliter
nm	Nanometer
m	Meter
μ M	Micromolar
MHz	Mega Hertz
Hz	Hertz
UV	Ultraviolet
λ	Maximum wavelength
IR	Infrared
cm ⁻¹	Per centimeter
J	Coupling constant (Hz)
s	Singlet
t	Triplet
d	Doublet
dd	Doublet of doublets
m	Multiplet
NMR	Nuclear magnetic resonance

^1H	Proton NMR
^{13}C	13 -carbon NMR
COSY	^1H - ^1H correlation spectroscopy
CDCl_3	Deuterated chloroform
CH_3	Methyl group
OCH_3	Methoxyl group
OH	Hydroxyl group
MS	Mass Spectrum
m/z	Mass/charge ratio
TLC	Thin layer chromatography
PTLC	Preparative thin layer chromatography
CC	Column chromatography
HCl	Hydrochloric acid
eV	Electron volt
Na_2SO_4	Sodium sulphate
MgSO_4	Magnesium sulphate
NaCl	Sodium chloride
KCl	Potassium chloride
$^\circ\text{C}$	Degree Celsius
2D NMR	Two dimensional NMR
DEPT	Distortion less Enhancement by Polarisation Transfer
GCMS	Gas Chromatogram Mass Spectrometry
LCMS	Liquid Chromatogram Mass Spectrometry
EIMS	Electron impact mass Spectrum
HMBC	Heteronuclear Multiple Bond Coherence

HMQC

Heteronuclear Multiple Quantum Coherence

IC₅₀

Concentration required for 50 % inhibition

ABSTRACT

The phytochemical study on the leaves and bark of *Alseodaphne corneri* (Lauraceae) involved extraction and separation of alkaloids by using various chromatographic methods. The structural elucidation of all the alkaloids were done using spectroscopic techniques such as 1D-NMR (^1H , ^{13}C , DEPT), 2D-NMR (COSY, NOESY, HMQC, HMBC), UV, IR, MS (GCMS, LCMS, HRMS) and comparison with the literature data.

Four aporphines isolated from the leaves of *Alseodaphne corneri*, were isocorydine **44**, norisocorydine **45**, *N*-methyl laurotetanine **46** and *N*-methyl lindcarpine **47**. Isolation and purification of alkaloids from the bark of *Alseodaphne corneri* afforded six known alkaloids and one new alkaloid. The new bisbenzylisoquinoline alkaloid was named as 3', 4'-dihydronorstephasubine **52**. The known compounds were two aporphine alkaloids; laurotetanine **48** and norboldine **49** and four bisbenzylisoquinoline alkaloids; gyrolidine **50**, norstephasubine **51**, 7'-*O*-demethylstebisimine **53** and stephasubimine **54**.

Four aporphines from the leaves of this species were tested for the antiplasmodial activity, and it was found that compound **46** exhibit most potent antiplasmodial activity with IC_{50} of 8.4 μM . Meanwhile, the bisbenzylisoquinoline alkaloids of **50**, **51**, and **52** from the bark of this species were tested for the antihypertensive activity. Gyrolidine **50** and 3'4'-dihydronorstephasubine **52** exhibited moderate vasorelaxant activity with 65% relaxation against contraction in the rat aorta strips.