A Phytochemical and Biological Study of *Adenanthera pavonina* L. Family Fabaceae

A thesis submitted by

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بسْـــــــــمِ اللهِ الرَّحْمَنِ الرَّحِيـــــــــــم

"قالوا سُبْحَانَكَ لاَ عِلْمَ لَنَا إلاَّ مَا عَلّمْتَنَا

إنَّكَ أنتَ الْعَلِيمُ الْحَكِيمُ"

صَدَقَ اللهُ الْعَظِيم

(سورة البقرة 32)

To the Soul of My "dear Father"

To My nice Mother and

My kind Brother

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Dina Atef Mohamed Waly

CONTENTS

LIST OF ABBREVIATIONS

$AlCl_3$	Aluminum chloride
ALP	Alkaline Phosphatase
ALT	Alanine Amino Transferase
AST	Aspartate Amino Transferase
B.P.	Base peak
b.p.	Boiling point
b.wt.	Body weight
CC	Column chromatography
CCl_4	Carbon tetrachloride
$CHCl_3$	Chloroform
^{13}C-NMR	^{13}C-Nuclear magnetic resonance
Co-PC	Comparative paper chromatography
DMSO	Dimethyl sulphoxide
DOX	Doxorubicin
DPPH	Diphenyl picryl hydrazyl
EtOH	Ethanol
EtOAc	Ethyl acetate
ESR	Electron spin resonance
g	Gram
GC\MS	Gas chromatography coupled with mass spectroscopy
GLC	Gas liquid chromatography
GSH	Glutathion
H_3BO_3	Boric acid
HCl	Hydrochloric acid
HCT	Colon carcinoma cell line
HEPG2	Liver carcinoma cell line
HElA	Human cervical carcinoma cell line
HMBC	Heteronuclear Multiple Bond Coherence
^{1}H-NMR	Proton nuclear magnetic resonance
HPLC	High performance liquid chromatography
i.p.	Intraperitoneal
KAU	King-Armstrong unit
Kg	Kilogram
L	Liter

LD_{50}	Median lethal dose
M.wt.	Molecular weight
NaOMe	Sodium methoxide
MCF7	Breast carcinoma cell line
MeOH	Methanol
µg\ml	Microgram per Milliliter
mg	Milligram
ml	Milliliter
mm	Milli meter
mM	Milli mole
MS	Mass spectroscopy
NaOAc	Sodium acetate
PC	Paper chromatography
PPC	Preparative paper chromatography
RR_t	Relative retention time
TLC	Thin layer chromatography
U/L	Unit per Liter
U/ml	Unit per milliliter
UV	Ultraviolet
v\v	Volume per volume

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