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Faculty of Pharmacy
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Potential protective effects of epigallocatechin-3-gallate against doxorubicin-induced cardiotoxicity in rats

Thesis submitted for the fulfillment of PhD degree in Pharmaceutical Sciences
Department of Pharmacology and Toxicology

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“يَرْفَعِ ٱللَّهُ ٱلَّذِينَ آمَنُواْ مِنكُمْ وَٱلَّذِينَ أُوتُواْ ٱلْعِلْمَ دَرَجَاتٍ وَٱللَّهُ بِمَا تَعْمَلُونَ خَبِيرٌ”

سورة المجادلة ١١

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List of abbreviations

Adenosine tri-phosphate	(ATP)
Angiotensin converting enzyme	(ACE)
Anthracyclines	(ANTs)
Apoptosis inducing factor	(AIF)
Calcium	(Ca^{2+})
Cardiovascular system	(CVS)
Catalase	(CAT)
complementary DNA	(cDNA)
Congestive heart failure	(CHF)
Creatine kinase	(CK)
Deoxyribonucliec acid	(DNA)
5,5′ dithiobis-2-nitrobenzoic acid	(DTNB)
Doxorubicin	(DOX)
Electrocardiography	(ECG)
Endothelial nitric oxide synthase	(eNOS)
Epidermal growth factor receptor 2	(ErbB2)
Epigallocatechin-3-gallate	(EGCG)
Erythropoietin	(EPO)
Extracellular signal-regulated kinases	(ERK1/2)
Ferric ion	(Fe^{3+})
Ferrous ion	(Fe^{2+})
Glucose-6-phosphate dehydrogenase	(G6PDH)
Granulocyte colony stimulating factor	(G-CSF)
Heart rate	(HR)
Heat shock factor	(HSF)
Heat shock protein	(Hsp)
Hexokinase	(HK)
Horseradish peroxidase	(HRP)
Hydrogen peroxide	(H_2O_2)
Hydroxyl radical	($OH^{\cdot}$)
Immunohistochemistry	(IHC)
Inhibitory kappa B	(IκB)
International unit	(IU)
Intraperitoneal	(i.p)
Intravenous	(IV)
Lactate dehydrogenase	(LDH)
Inducible nitric oxide synthase	(iNOS)
Inhibitor- κB Kinase	(IKK)
Malondialdehyde	(MDA)

Mitogen-activated protein kinase	*(MAPK)*
7-monohydroxyethylrutoside	*(monoHER)*
Nicotinamide adenine dinucleotide phosphate	*(NADPH)*
Nitric oxide	*(NO)*
Nitric oxide synthase	*(NOS)*
Nitroblue tetrazolium	*(NBT)*
Nuclear factor kappa-B	*(NF-κB)*
Optical density	*(OD)*
Oxygen	*(O_2)*
Phenazine methosulphate	*(PMS)*
Phosphate buffer solution	*(PBS)*
Platelet activating factor	*(PAF)*
Potassium ion	*(K^+)*
Quantitative real-time Polymerase chain reaction	*(RT-PCR)*
Reactive oxygen species	*(ROS)*
Reduced glutathione	*(GSH)*
Recombinant human erythropiotin	*(rhEPO)*
Ribonucleic acid	*(RNA)*
Sodium ion	*(Na^+)*
Superoxide dismutase	*(SOD)*
Superoxide radical	*($O_2^{\cdot -}$)*
3,3',5,5' tetramethyl benzidine	*(TMB)*
Thiobarbituric acid	*(TBA)*
Thiobarbituric acid reactive species	*(TBARS)*
Thrombopiotin	*(TPO)*
Trichloroacetic acid	*(TCA)*
Tumer necrosis factor-alpha	*(TNF-a)*
Unit/ liter	*(U/L)*
Vascular adhesion molecules	*(VCAMs)*
Vascular smooth muscle cells	*(VSMCs)*
Xanthine oxidase	*(XO)*

List of Tables

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List of Figures