

Abbreviations

DOX	: Doxorubicin
H ₂ DCFDA	: 2',7'-Dichlorodihydrofluorescein diacetate
HEPES	: N-(2-hydroxyethyl)-piperazine-N- (2-ethanesulfonic acid)
MTT	: 3-[4,5dimethylthiazol- 2-yl] -2,5-diphenil-tetrazolium bromide
ROS	: Reactive oxygen species
PBS	: Phosphate saline buffer
DMEM	: Dulbecco's Modified Eagle's Medium
CuONPs	: Copper Oxide nanoparticles
TEM	: Transmission electron microscopy
DLS	: Dynamic light Scattering
EDX	: Energy dispersive X ray
NO	: Nitric Oxide
AAS	: Atomic absorbtion spectroscopy
CuONPs	: Copper Oxide Nanoparticles
CS	: Chitosan
CuONPs@CS	: Chitosan coated Copper Oxide nanoparticles
MΦ	: Macrophage
PBS	: Phosphate saline buffer
SEM	: Scanning electron microscopy
TGA	: Tharmogravimetric analysis
Th1	: Type 1 T helper cell
Th2	: Type 2 T helper cell
APC	: Antigen presenting cell
Ab	: Antibody
POF	: Pentoxifylline
SAAZ	: Sulfasalazine
PBMC	: Peripheral blood mononuclear cell
IgG	: Immunoglobulin G
BSA	: Bovine serum albumin
GSH	: Reduced glutathione

GSSG	: Oxidised glutathione
CD4+	: Cluster of differentiation 4 with positive T cells
CD8+	: Cluster of differentiation 8 with T cells
CTL	: Cytotoxic T lymphocytes
MLR	: Mixed lymphocytes reaction
LDH	: Lactate dehydrogenase
PHA	: phytohaemagglutinin
FR	: Folate Receptor
FA	: Folic acid
TGF	: Transforming growth factor
TNF- α	: Tumor necrosis factor alpha
SDS	: Sodium dodecyl sulfate
POF	: Pentoxifylline
RhB	: Rhodamine B
NAC	: N-acetyl-L-cysteine
NaCl	: Sodium chloride
NaOH	: Sodium Hydroxide
NADPH oxidase	: Nicotinamide adenine dinucleotide phosphate-oxidase
PI	: Propidium iodide
μg	: Microgram
μl	: Microliter
%	: Percent
ml	: Milliliter
Ig	: Immunoglobulin
IgG1	: Immunoglobulin G 1
IgG2a	: Immunoglobulin G 2
IL-10	: Interleukine 10
IL-12	: Interleukin 12
K_2HPO_4	: Di-potassium hydrogen phosphate
Kg	: Kilogram
LPS	: Lipopolysaccharide

M	: Molar concentration
MAPK	: Mitogen activated protein kinase
MDA	: Malondialdehyde
EDTA	: Ethylene diamine tetra acetate
EtBr	: Ethidium bromide
AO	: Acridine Orange
FACS	: Fluorescence-activated cell sorting
FBS	: Fetal bovine serum
HCl	: Hydrochloric acid
i.p.	: Intraperitoneal
IFN- γ	: Interferon gamma
NaCl	: Sodium chloride
NaOH	: Sodium Hydroxide
EPR	: Enhanced permeability retention
DPPH	: 2,2-diphenyl-1-picrylhydrazyl
<i>A. indica</i>	: <i>Azadirachta indica</i>