

List of Abbreviations

4-PPAC	4-Fluorophenylacetamide-acetyl Coumarin
A549	Human Lung Adenocarcinoma cell line
ADME	Absorption, Distribution, Metabolism, Excretion
ANOVA	Analysis of variance
AO	Acridine Orange
APS	Ammonium Persulfate
BAX	BCL2 Associated X Protein
BBB	Blood-Brain Barrier
BCIP	5- bromo-4- chloro-3- indolyl phosphate
Caspase	Cysteine dependent aspartate- directed proteases
CAT	Catalase
CCND	Cyclin D
CCNE	Cyclin E
CLDN	Claudin
DAPI	4, 6-diamidino-2-phenylindole
DCFH-DA	Dichlorodihydrofluorescein diacetate
DCFH-DA	Dichlorodihydrofluorescein diacetate
DEPC	Diethyl Pyrocarbonate
DFT	Density Functional Theory
DMEM	Dulbecco's modified eagles medium
DMF	Dimethylformamide
DMSO	Dimethyl sulfoxide
ECM	Extracellular matrix
EMT	Epithelial-Mesenchymal Transformation
EtBr	Ethidium Bromide
FBS	Fetal Bovin Serum
FMO	Frontier Molecular Orbital
GPx	Glutathione Peroxidases
HET-CAM	Hen's Egg Test-Chorioallantoic Membrane
HH	Hamburger-Hamilton
HOMO	Highest Occupied Molecular Orbital

IC ₅₀	Half-maximal inhibitory concentration
IL	Interleukins
iNOS	Inducible Nitric Oxide Synthase
KPE	Potassium Phosphorus EDTA
LDH	Lactate dehydrogenase
LMP	Lysosomal membran potential
LUMO	Lowest Unoccupied Molecular Orbital
MDM2	Mouse double minute 2 homolog
MESP	Molecular electrostatic potential
min	Minute
MMP	Matrix metalloproteinases
MTT	3-(4,5-Dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide
NAC	N-acetyl-L-cysteine
NCBI	National Centre for Biotechnology Information
NIH3T3	Mouse Fibroblast cell line
NMA	Normal Melting Agarose
NSCLC	Non-Small Cell Lung Cancer
OPLS	Optimized potentials for liquid simulations
PBF	Poisson Boltzmann Finite
PBS	Phosphate Buffered Saline
PBST	Phosphate Buffered Saline Tween 20
PCNA	Proliferating cell nuclear antigen
PDB	Protein Data Bank
PI	Propidium Iodide
PI3K	Phosphoinositide 3-kinase
PTEN	Phosphatase and tensin homolog
PDGF	Platelet-derived growth factor
PGF	Placental growth factor
QPlogBB	Predicted Brain/blood partition coefficient
QPlogHERG	Predicted IC ₅₀ value for blockage of HERG K ⁺ channel
QPlogKhsa	Prediction of binding to Human serum albumin

QPlogKp	Predicted Skin permeability, logKp
QPlogPo/w	Predicted Octanol/water partition coefficient
QPlogPoct	Predicted Octanol/gas partition coefficient
QPlogPw	Predicted Water/gas partition coefficient
QPlogS	Predicted Aqueous solubility
QPPCaco	Predicted Caco-2 cell permeability in nm/sec
QPPMDCK	Predicted MDCK cell permeability in nm/sec
RH-123	Rhodamine 123
RIR	Rhode Island Red
ROS	Reactive Oxygen Species
RT	Room Temperature
RT- PCR	Reverse Transcription Polymerase Chain Reaction
SCLC	Small Cell Lung Cancer
SDS- PAGE	Sodium Dodecyl Sulphate Polyacrylamide Gel Electrophoresis
SOD	Superoxide Dismutase
TAM	Tumor-associated macrophages
TGF	Transforming Growth Factor
TIMP	Tissue Inhibitor of Matrix Metalloproteinase
TNF- α	Tumor Necrosis Factor- α
VEGF	Vascular endothelial growth factor
XP	Extra precision