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LIST OF ABBREVIATIONS

°C	Degree Centigrade
μl	Micro Liters
AJCC	American Joint Committee on Cancer
ALA	Alanine
ClogP	Log Partition coefficient
CREB	cAMP Response Element Binding
DL	Drug Likelihood
EBRT	External Beam Radiation Therapy
EGF	Epidermal Growth Factor
EGFR	Epidermal Growth Factor Receptor
EGFR TKIs	Epidermal Growth Factor Receptor-Tyrosine Kinase Inhibitors
ERK	Extracellular Regulated Kinase
FDA	Food and Drug Administration
FTIR	Fourier Transform Infrared Spectroscopy
GAP	GTPase Activating Protein
GEF	GTPase Exchange Factor
GF	Growth Factor
Grb2	Growth factor receptor bound protein 2
Gscore	Glide Score
HBA	Hydrogen Bond Acceptor
HBD	Hydrogen Bond Donor
HER2	Human Epidermal Growth Factor Receptor 2
HNSCC	Head and Neck Squamous Cell Cancer
Hsp90	Heat shock protein 90
IC ₅₀	Inhibitory Concentration ₅₀
IR	Infra Red

IRS	Insulin Receptor Substrate
kcal	Kilocalorie
kDa	Kilo Dalton
KI	Kinase Inhibition
LEU	Leucine
LYS	Lysine
MAPK	Mitogen-Activated Protein Kinase
MAbs	Monoclonal Antibodies
mCRC	Metastatic Colorectal Cancers
mTORC1	Mammalian Target of Rapamycin1
MET	Methionine
mg	Milligram
ml	Milli Litres
mM	Milli Moles
MM ₂	Molecular Mechanics 2
mol	Mole
MP	Melting Point
MR	Molar Refractivity
MW	Molecular Weight
Na ₂ CO ₃	Sodium Carbonate
NaHCO ₃	Sodium Bicarbonate
NaNO ₂	Sodium Nitrite
NaOH	Sodium Hydroxide
NCEs	New Chemical Entities
nM	Nano Molar
NMR	Nuclear Magnetic Resonance
NSCLC	Non-Small Cell Lung Cancer
PDB	Protein Data Bank

PH	Pleckstrin Homology
PHE	Phenylalanine
PDK1	Phosphoinositide Dependent Kinase 1
PI3K	Phosphatidylinositol 3-kinase
PIP ₃	Phosphatidylinositol (3)-trisphosphate
PK	Pharmacokinetic
PKB	Protein Kinase B
PLC γ	Phospholipase C γ
PSA	Polar Surface Area
PTB	Phosphotyrosine Binding
RPM	Round Per Minute
RSK	Ribosomal Protein S6 Kinase
RT	Room Temperature
RTKs	Receptor Tyrosine Kinases
SH2	Src Homology 2
SCLC	Small Cell Lung Cancer
SOS	Son of Sevenless
TEA	Triethylamine
TGF- α	Transforming Growth Factor α
THR	Threonine
TK	Tyrosine Kinase
TLC	Thin Layer Chromatography
TM	Transmembrane
TMS	Trimethylsilane
TPSA	Topological Polar Surface Area
TSC	Tuberous Sclerosis Complexes
Tyr	Tyrosine
VEGFR2	Vascular Endothelial Growth Factor Receptor2

VAI	Valine
WHO	World Health Organization
WT	Wild Type
XP	Extra Precision