

List of Abbreviations and Symbols

ACD	Acid citrate dextrose
ACT	Artemisinin-based combination therapy
AMA1	Apical membrane antigen 1
A _{NC}	Absorbance of negative control
ANOVA	Analysis of variance
A _{PC}	Absorbance of the positive control
AQ	Water
A _S	Absorbance of test sample or positive control
BLAST	Basic Local Alignment Search Tool
CQ	Chloroquine
CSP	Circumsporozoite protein
DCM	Dichloromethane
DMSO	Dimethyl sulfoxide
DNA	Deoxyribonucleic acid
EtOAc	Ethyl acetate
EtOH	Ethanol
FC	Folin Ciocalteu
FDA	Food and Drug Administration
G6PD	Glucose-6-phosphate dehydrogenase
GMS	Greater Mekong Subregion
GSH	Glutathione reduced form
GSSG	Glutathione disulfide form
HAP	Histo aspartic protease
HbS	Sickle haemoglobin
HC ₅₀	Half maximal hemolytic concentration
HEK	Human embryonic kidney cell lines
HEX	n-Hexane
HMM	Hidden Markov Models
IC ₅₀	Half maximal inhibitory concentration
ICMR	Indian Council of Medical Research
IPTG	Isopropyl β-D-1-thiogalactopyranoside

LB	Lieberman Burchard
LC	Liquid Chromatography
MBI	Molecular Biology Institute
mPM I	Mature Plasmespsin I
mPM II	Mature Plasmespsin II
MS	Mass spectrometry
MTT	3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyl tetrazolium bromide
NCBI	National Center for Biotechnology Information
NIH	National Institutes of Health
NIMR	National Institute of Malaria Research
NIST	National Institute of Standards and Technology
NMR	Nuclear magnetic resonance
NPI-10	50mM NaH ₂ PO ₄ , 300mM NaCl, 10mM Imidazole
NPI-20	50mM NaH ₂ PO ₄ , 300mM NaCl, 20mM Imidazole
NPI-250	50mM NaH ₂ PO ₄ , 300mM NaCl, 250mM Imidazole
PAGE	Polyacrylamide gel electrophoresis
PBS	Phosphate Buffer Saline
PC	Phosphatidylcholine Phenazine methosulfate
PCR	Polymerase chain reaction
PDB	Protein Data Bank
PDBQT	Protein Data Bank; 'Q': partial charges; 'T': AutoDock 4 (AD4)
atom	types ('T')
Phyre2	Protein Homology/analogY Recognition Engine version 2.0
PM	Plasmespsin
PMS	Phenazine methosulfate
P _{NC}	Parasitemia of negative control
P _S	Parasitemia of test sample or positive control
PS	Prosegment
QTOF	Quadrupole time-of-flight
RBC	Red Blood Cell
rpm	Revolutions per minute
RPMI	Roswell Park Memorial Institute
RT	Retention time

RTS,S	RTS (R: central repeat region of <i>Plasmodium falciparum</i> CSP; T : T-cell epitopes of the CSP; S: hepatitis B surface antigen) and free S protein
SAVES v6.0	Structure analysis and verification server version 6
SDS	Sodium dodecyl sulfate
SDF	Structure Data File
SI	Selectivity index
WHO	World Health Organization
$\Delta A_{100\%}$	Change in absorbance of 100% reaction control
ΔA_S	Change in absorbance of sample
ϵ	Molar extinction coefficient