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**ABBREVIATIONS AND SYMBOLS**

%	Percentage
°C	Degree Celsius
4-NP	4-Nitrophenol
ACEH	Acidified methanol extract of glutinous purple rice hull
ANOVA	Analysis of variance
C3G	Cyanidin-3-glucoside
CE	Cathechin equivalents
CYP2E1	Cytochrome P450 isozyme 2E1
CPR	Cytochrome P450 reductase
CDNB	1-Chloro-2,4-dinitrobenzene
CYP2E1	Cytochrome P450 isoform 2E1
DEN	Diethylnitrosamine
DCEH	Dichloromethane extract of glutinous purple rice hull
DCPIP	2,6-Dichlorophenol-indophenol
ECL	Enhanced chemiluminescence
FAD	Flavin adenine dinucleotide
g	gram
<i>g</i>	Gravitational acceleration
GAE	Gallic equivalents

GST	Glutathione <i>S</i> -transferase
GSH	Glutathione reduced
HO-1	Heme oxygenase-1
HPLC	High-performance liquid chromatography
hr	Hour
ig	Intragavage
IgG	Immunoglobulin G
ip	Intraperitoneal
kDa	Kilo dalton
LSD	Least significant difference
l	Liter
MES	Methanol extract of purple rice seed
M	Molar
MNHEPs	Micronucleated hepatocyte
ml/kg bw	Milliliter per kilogram body weight
mg/kg bw	Milligram per kilogram body weight
mg	Milligram
mA	Milliampere
MI	Mitotic index
min	Minute
ml	Milliliter
mmol	Millimolar
µg	Microgram
µl	Microliter

$\mu\text{M}$	Micromolar
N.A.	Not analysis
NADP(H)	Nicotinamide adenine dinucleotide phosphate
NQO	NADP(H) Quionone oxidoreductase
NSS	Normal saline
nm	Nanometer
OECD	The Organization of Economic Co-Operation and Development
TPBS	Tween 20-phosphate buffer saline
PH	Partial hepatectomy
pH	Power of hydrogen
PBS	Phosphate buffer saline
rpm	Round per minute
SDS-PAGE	Sodium dodecyl sulfate-polyacrylamide gel electrophoresis
S.D.	Standard deviation
TCA	Trichloroacetic acid
U	Enzyme Unit
UDP-GT	Uridine 5'-diphospho- glucuronyltransferase
UDP-GA	Uridine 5'-diphospho-glucuronic acid
v/v	Volume by volume