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### **ABBREVIATIONS AND SYMBOLS**

AED	= Animals Equivalent Dose
ALE	= Advanced Lipoxidation End Products
ATP	= Adenosine Triphosphate
BW	= Body Weight
C <sub>10</sub> H <sub>14</sub> N <sub>2</sub>	= Chemical structure of Nicotine
CYP	= Cytochrome P450
CRD	= Completely Randomized Design
CYP2A6	= Cytochrome P450 2A6
DDY	= Deutschland, Denkenand and Yonken
DNA	= Deoxyribonucleic acid
ER	= Endoplasm Reticulum
GSH	= Glutathione
GPx	= Glutathione Peroxidase
HE	= Haematoxylin-Eosin
HED	= Human Equivalent Dose
H <sub>2</sub> O <sub>2</sub>	= Hydrogen Peroxide
HOCl <sup>-</sup>	= Hypochlorous Oxide
IFN- $\gamma$	= Interferon $\gamma$
IL-1	= Interleukin 1
IL-1 $\beta$	= Interleukin 1 $\beta$
IL-3	= Interleukin 3
IL-6	= Interleukin 6

IL-10	= Interleukin 10
MDA	= Malondialdehyde
MPT	= Mitochondrial Permeability Transition
NADPH	= Nicotinamide Adenine Dinucleotide Phosphate Hydrogen
NF-K $\beta$	= Nuclear Factor kappa-light-chain-enhancer of activated B cells
NNK	= 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone
NNN	= N-nitrosonornicotine
NO	= Nitric Oxide
NOS	= Nitric Oxide Systems
O $_2^-$	= Superoxide Anion
O $_2$	= Oxygen
OH $^-$	= Hydroxide
ONOO $^-$	= Peroxynitrite
PGE2	= Prostaglandin E2
pH	= Potential of Hydrogen
pKa	= $-\log_{10}K_a$ (the negative base-10 logarithm of the acid dissociation constant ( $K_a$ ) of a solution)
ROS	= Reactive Oxygen Species
SOD	= Superoxide Dismutase
SPSS 21	= <i>Statistic Product and Service Solution 21</i>
TNF $\alpha$	= Tumor Necrosis Factor- $\alpha$
UGTs	= UDP-glucuronosyltransferases