# TABLE OF CONTENTS

# TABLE OF CONTENTS (Cont.)

# TABLE OF CONTENTS (Cont.)

# LIST OF TABLES

# LIST OF FIGURES

# LIST OF FIGURES (Cont.)

# LIST OF FIGURES (Cont.)

# LIST OF FIGURES (Cont.)

# LIST OF FIGURES (Cont.)

# LIST OF FIGURES (Cont.)

# LIST OF FIGURES (Cont.)

# LIST OF FIGURES (Cont.)

# LIST OF FIGURES (Cont.)

# LIST OF FIGURES (Cont.)

# LIST OF FIGURES (Cont.)

# LIST OF ABBREVIATIONS

| | |
|---|---|
| 5-HT | 5-hydroxytryptamine or serotonin |
| Ach | Acetylcholine |
| AChE | Acetylcholinesterase |
| ACTH | Adrenocorticoteophic hormone |
| ADP | Adenosine diphosphate |
| ATP | Adenosine triphosphate |
| AMPA | α-Amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid |
| ANOVA | Analysis of variance |
| AO | *Anacardium accidentale* |
| ATP | Adenosine triphosphase |
| AVP | Arginine vasopressin |
| BDNF | Brain derived growth Factor |
| BLA | Basolateral complex of amygdala |
| BW | Body weight |
| °C | Celsius degree |
| Ca2+ | Calcium ion |
| CA1 | Cornu ammonis area 1 |
| CA2 | Cornu ammonis area 2 |
| CA3 | Cornu ammonis area 3 |
| CaMKII | Ca2+/calmodulin-dependent protein kinase II |
| cGMP | Cyclic guanosine monophosphate |
| CGRP | Calcitonin gene-related peptide |
| Cl- | Chloride ion |
| cm | Centimeter |
| CNS | Central nervous system |
| CO2 | Carbon dioxide |
| COX-2 | Cyclooxygenase 2 |
| CREB | cAMP response element-binding |
| CRH | Corticotrophin Releasing Hormone |

# LIST OF ABBREVIATIONS (Cont.)

| | |
|---|---|
| DA | Dopamine |
| DG | Dentate gyrus |
| DHT | Dihydrotestosterone |
| DNA | Deoxy ribonucleic acid |
| DPPH | 2,2-diphenyl-1-picrylhydrazyl |
| DW | Distilled water |
| e.g. | For example |
| eNOS | Endothetail nitric oxide synthase |
| etc | Et cetera |
| FA | Ferulic acid |
| $FADH_2$ | Flavin adenine dinucleotide (reduced form) |
| GABA | Gamma-aminobutyric acid |
| g/kg BW | Gram per kilogram body weight |
| GLU | Glutamate |
| gm | Gram |
| GSH-Px | Glutathione peroxidase |
| GTP | Guanosine triphosphate |
| h | hour |
| H+ | Hydrogen ion |
| $H_2O_2$ | Hydrogen peroxide |
| $HO^{\cdot}$ | Hydroxyl radical |
| HPA | Hypothalamic pituitary adrenal |
| HPG | Hypothalamus Pituitary Gonadal |
| i.c.v. | Intracerebroventricular |
| i.p. | Intraperitoneal |
| K+ | Potassium |
| kg | Kilogram |
| KPBS | Krebs phosphate buffer saline |
| LD50 | Lethargy dose |

# LIST OF ABBREVIATIONS (Cont.)

| | |
|---|---|
| LTP | Long Term Potentiation |
| M | Mole |
| ml | Milliliter |
| min. | Minutes |
| mg | Milligram |
| $Mg^{2+}$ | Magnesium |
| mg/kg BW | Milligram per kilogram body weight |
| MAO | Monoamine oxidase enzyme |
| MAOA | Monoamine oxidase enzyme type A |
| MAOB | Monoamine oxidase enzyme type B |
| MDA | Malondialdehyde |
| MO | *Moringa oleifera* |
| MPOA | Medial preoptic area |
| MWMT | Morris water maze test |
| $Na^{+}$ | Sodium |
| NAc | Nucleus accumbens |
| NAD | Nicotinamide adenine dinucleotide |
| NADH | Nicotinamide adenine dinucleotide (oxidized form) |
| NADP+ | Nicotinamide adenine dinucleotide phosphate (oxidized form) |
| NADPH | Nicotinamide adenine dinucleotide phosphate (reduced form) |
| NMDA | N-methyl-D-aspartate |
| nm | Nanometer |
| nmoles | Nanamoles |
| NANC | Nonadrenergic-noncholinergic |
| Na+ | Sodium ion |
| NE | Norepinephrine |
| NMDA | N-methyl-D-aspatate |
| NN | *Nelumbo nucifera* |
| NO | Nitric Oxide |

# LIST OF ABBREVIATIONS (Cont.)

| | |
|---|---|
| NOS | Nitric Oxide synthase |
| NPY | Neuropeptide Y |
| NR2B | N-methyl D-aspartate receptor subtype 2B |
| Nss | Normal saline solution |
| NTS | Nucleus of the solitary tract |
| $O_2$ | Oxygen |
| $O_2^{\bullet-}$ | Superoxide anion |
| OH - | Hydroge |
| OH. - | Hydroxy radical |
| PDE-5 | Phosphodiesterase type 5 |
| PFC | Prefrontal cortex |
| PKA | Protein kinase A |
| PKC | Protein kinase C |
| PKG | Protein kinase G |
| POMC | Pro-opiomelanocortin |
| PVN | Paraventricular Nucleus |
| QE | Quercetin equivalents |
| RNS | Reactive nitrogen species |
| ROS | Reactive oxygen species |
| SAM | Sympathetico adrenomedullary system |
| S.E.M. | Standard error of mean |
| SDS | Sodium dodecyl sulfate |
| SOD | Superoxide dismutase |
| TBA | Thiobarbituric acid |
| TH | Tyrosine hydroxylase |
| TPTZ | Tripyridyltriazine |
| Vit C | Vitamin C |
| VIP | Vasoactive intestinal polypeptide |
| VTA | Ventral tegmental area |
| µl | Microliter |