

## ABBREVIATIONS

|                 |   |
|-----------------|---|
| aCSF            | artificial cerebrospinal fluid                                  |
| ADP             | adenosine di-phosphate  |
| AMPA            | alpha-amino-3-hydroxy-5-methylisoxazole-4-propionate            |
| APV             | 2-amino-5-phosphonopentanoic acid                               |
| BCA             | bicinchoninic acid  |
| BNG             | bicuculline, nifedipine, glycine                                |
| BSA             | bovine serum albumin  |
| CA1             | <i>Cornu Ammonis</i> , the hippocampal subregion 1              |
| CaMKII $\alpha$ | calcium-calmodulin dependent kinase 2 alpha                     |
| CDK5            | cyclin-dependent kinase 5                                       |
| CHAPS           | 3-[(3-Cholamidopropyl) dimethylammonio]-1-propanesulfonate      |
| COS             | CV-1 (simian) in Origin, and carrying the SV40 genetic material |
| CREB            | cAMP-response element binding protein                           |
| CS              | cutting saline  |
| DAPI            | 4'-6-diamidino-2-phenylindole                                   |
| DI              | discrimination index  |
| DIV             | days <i>in vitro</i>  |
| DMSO            | dimethyl sulfoxide  |
| DNA             | deoxyribonucleic acid (DNA)                                     |
| DTT             | dithiothreitol  |
| ECL             | enhanced chemiluminescence                                      |
| EDTA            | ethylene diamino tetraacetic acid                               |
| EGTA            | ethylene glycol tetraacetic acid                                |

|       |  |
|-------|--|
| GAPDH | glyceraldehyde 3-phosphate dehydrogenase   |
| GluR  | glutamate receptor   |
| GTP   | guanosine tri-phosphate  |
| HAT   | histone acetyltransferase  |
| HDAC  | histone deacetylase  |
| HEPES | N-(2-hydroxyethyl) piperazine-N'-(2-ethanesulfonic acid); 4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid |
| HRP   | horse-radish peroxidase  |
| ITI   | inter-trial interval   |
| KCl   | potassium chloride   |
| LTF   | long-term facilitation   |
| LTM   | long-term memory   |
| LTP   | long-term potentiation   |
| MAPK  | mitogen-activated protein kinase   |
| MOPS  | 3-(N-morpholino) propanesulfonic acid  |
| mRNA  | messenger ribonucleic acid   |
| NAD   | nicotinamide adenine dinucleotide  |
| NMDA  | N-methyl D-aspartate   |
| PAGE  | polyacrylamide gel electrophoresis   |
| PARP  | poly(ADP)-ribose polymerase  |
| PBS   | phosphate buffered saline  |
| PC12  | pheochromocytoma 12  |
| pI    | isoelectric point  |
| PJ-34 | N-(6-Oxo-5,6-dihydrophenanthridin-2-yl)-(N,N-dimethylamino) acetamide  |

|       |                                    |
|-------|------------------------------------|
| PKA   | protein kinase A                   |
| PSD95 | postsynaptic density protein 95    |
| RIPA  | radio-immunoprecipitation assay    |
| RNA   | ribonucleic acid                   |
| SDS   | sodium dodecyl sulfate             |
| SEM   | standard error of mean             |
| SIRT2 | sirtuin2                           |
| STF   | short-term facilitation            |
| STM   | short-term memory                  |
| SUMO  | small ubiquitin-like modifier      |
| TBST  | Tris-buffered saline with Tween 20 |
| TiQ-A | thieno [2, 3-c] isoquinolin-5-one  |
| TSA   | trichostatin A                     |