

## Appendix

4CPG	(S)-4-carboxyphenylglycine
5HT3R	Type3 serotonin receptor
[Ca <sup>2+</sup> ] <sub>i</sub>	Intracellular Ca <sup>2+</sup> concentration
ACSF	Artificial cerebro spinal fluid
AD	Alzheimer's disease
AHPs	Afterhyperpolarizations
al	alveus
AMPA	Alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid
Bicuculline	(R-(R,S))-6-(5,6,7,8-Tetrahydro-6-methyl-1,3-dioxolo[4,5-g]isoquinolin-5-yl)furo[3,4-e]-1,3-benzodioxol-8(6H)-one
CA1,	cornu ammonis 1
CA3	cornu ammonis 3
CaBPs	Calcium-Binding Proteins
Calbindin-D28k-IR	Calbindin-D28k-immunoreactive
CNQX	6-cyano-7-nitroquinoxaline-2,3-dione
CR	Calretinin
D-AP5	2-amino-5- phosphonovaleric acid
DAPs	Depolarizing after potentials
DCX	Doublecortin
DG	Dentate gyrus
DHPG	(R,S)-3,5-dihydroxyphenylglycine
DHβE	dihydro-beta-erythroidine
DMEM	Dulbecco's modified Eagle's medium
ECL	Enhanced chemiluminescence
EGTA	Ethylene glycol tetraacetic acid
ER	Endoplasmic Reticulum
FCS	Fetal calf serum
gl	granular layer
GAD67	GAD67
GC-B	Guanylyl cyclase B
GFAP	Glial fibrillary acidic protein
h.	hilus
HEPES	4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid
IP3	Inositol 1,4,5-trisphosphate
IP3R	Inositol 1,4,5-trisphosphate receptor
IPSCs	Inhibitory postsynaptic currents
LTD	Long term depression
LTP	Long term potentiation
mAChR	Muscarinic acetylcholine receptor
mGluR1α-IR	mGluR1α-immunoreactive
mGluRs	Metabotropic glutamate receptors
MLA	Methyllycaconitine
MLi	inner molecular layer
MLo	outer molecular layer
nAChR	Neuronal acetylcholine receptor
NCS	Neuronal Calcium Sensors
NCS-1	Neuronal calcium sensor-1
NeuN	Neuronal Nuclei/ Neuron-Specific Nuclear Protein
NMDAR	N-methyl-D-aspartate receptor
NPY	Neuropeptide Y
PBS	Phosphate-buffered saline (pH 7.6)
PSA-NCAM	polysialylated forms of the cell-surface glycoprotein NCAM
PV	Parvalbumin
RyR	Ryanodine receptor

sl	Stratum lucidum
slm/sml	Stratum lacunosum-moleculare
so	Stratum oriens
sp	Stratum pyramidale
sr	Stratum radiatum
SD	Standard deviation
SDS	Sodium dodecyl sulfate
SDS-PAGE	Sodium dodecyl sulfate polyacrylamide gel electrophoresis
SGZ	Subgranular zone
SOM	Somatostatin
STP	Short term potentiation
TRPC	Transient receptor potential channel
TTX	Tetrodotoxin citrate
VILIP-1-IR	VILIP-1-immunoreactivity
VILIPs	Visinin like protein subfamily
VOCC	Voltage operated Ca <sup>2+</sup> channel
VILIP-2	Visinin-like protein 2
VILIP-1	Visinin-like protein 1