Abbreviation list

See the text for each cytoarchitectural area; only the most frequently used abbreviations are here.

αSN	α-synuclein immunoreactive neurons
αSNr	α-synuclein immunoreactive neurites
[^{3}H]dT	[^{3}H]thymidine
25/IL	area 25
2D, 3D	dimensional
32/PL	area 32
5,7-DHT	5,7-dihydroxytryptamine; 5HT-selective toxin
5-IAA	5-indole acetic acid
5HT	serotonin
5-HT$_{1A}$, 5-HT$_2$	serotonin receptors
5HT3	serotonin 3 receptor
5HTT	serotonin transporter
6-OHDA	6-hydroxydopamine
A	amygdala
AA	anterior amygdaloid nucleus
Aβ	amyloid beta
AB	accessory basal nucleus of amygdala
ac	anterior commissure
ACA	anterior cortical atrophy
ACad	ACC affective division
ACC	anterior cingulate cortex defined in Chapter 1(Not Brodmann's definition)
ACC, p, s	anterior cingulate cortex; pregenual and subgenual divisions
ACcd	ACC cognitive division
ACG	anterior cingulate gyrus
ACh	acetylcholine
ACTH	adrenocorticotrophin hormone
AD	Alzheimer's disease
AD	anterodorsal nucleus of thalamus
ADHD	attention deficit-hyperactivity disorder
ADFLE	autosomal dominant frontal lobe epilepsy
AFP	atypical facial pain
AG	adrenal gland (Chap.22)
AG	annectant gyrus (Chap.13)
AGm	medial agranular cortex in rodent
a-ins	anterior insula
AM	anteromedial nucleus of thalamus
Amb	nucleus ambiguus
aMCC	anterior midcingulate cortex
AMPA	α-amino-3-hydroxy-5-methyl-4-isoazole-propionic acid
amts	anterior medial temporal sulcus
amyg	amygdala
ANS	autonomic nervous system
AP	anterior pituitary
APD	antipsychotic medication
ApoE	Apolipoprotein E
APP	amyloid precursor protein
AS, as	arcuate sulcus
AT8	antibody to phosphorylated tau
ATh	anterior nuclei of thalamus
ATN	anterior thalamic nuclei
AV	anteroventral nucleus of thalamus
Aβ, 40,42,43	amyloid-β peptide immunoreactivity for 40–43 amino acid length peptide
BA	Brodmann areas
bcc	body of the corpus callosum
bCCOI	basal correlated clusters of interest
BD	bipolar disorder
BDA	biotinylated dextran amine
BDNF	brain-derived neurotrophic factor
BLA, BLa	basolateral nucleus of amygdala
BLD	basalateral, dorsal nucleus of amygdala
BMMC	basomedial magnocellular nucleus of amygdala
BN	Barrington's nucleus
BOLD	blood oxygen-dependent signal
BrdU	bromodeoxyuridine
bs	brainstem nuclei
BZ	GABA$_A$ associated benzodiazepine binding site
ca	caudate nucleus
CA1	CA1 subfield of the hippocampaus
CaS	calcarine sulcus

cas	callosal sulcus
Cau	caudate nucleus
CB	calbindin
CB	cingulum bundle (Chaps. 7, and 30)
CBF	cerebral blood flow
CBT	cognitive-behavioral therapy
CC	corpus callosum
CCK_4	cholecystokinin tetrapeptide
CCZ	caudal cingulate zone
Cd	caudate nucleus
Cdc	central densocellular nucleus, thalamus
CDR	Clinical Dementia Rating score
cd-vs	caudate-ventral striatum
Ce, CeA	central nucleus of amygdala
Cel	centrolateral nucleus of amygdala
CeM	central medial nucleus, thalamus
CeM	centromedial nucleus of amygdala (Chap. 22)
CERAD	Consortium to Establish a Registry for Alzheimer's Disease
ces	central sulcus
CF, cf	calcarine fissure
CFP	cingulo-frontal-parietal cognitive/ attention network
Cg	cingulate
CG	cingulate gyrus
cg	cingulate sulcus
Cg24	cingulate area 24
Cg25	cingulate area 25
cgs, CINGS	cingulate sulcus
ci	cingulate sulcus
Cif	central inferior nucleus, thalamus
Cim	central inferior midline nucleus, thalamus
Cim	central intermedius nucleus, thalamus
CIND	cognitive impairment, no dementia
CL	central lateral nucleus, thalamus
Clc	central latocellular nucleus, thalamus
CM	centre médian nucleus
CMA; c, r	cingulate motor area; caudal, rostral
CML	caudomedial lobule
CMRglc	cerebral metabolic rate for glucose
CMSR	caudomedial subregion
CNP	central neuropathic pain
CNS	central nervous system
CNV	contingent negative variation
Co	cortical nucleus, amygdala
COMT	catecholamine-O-methyltransferase
CP	cortical plate
CPMA; r, c	cingulate premotor area; rostral, caudal (equivalent to CMAs)
CPT	continuous performance task
CR	calretinin
CRH	corticotrophin releasing hormone
CRP	chronic regional pain
cs	central sulcus
Cs	central superior nucleus, thalamus
CS	conditional stimulus
CS, cs	cingulate sulcus, central sulcus
CSF	cerebrospinal fluid
Csl	central superior lateral nucleus, thalamus
CT	computed tomography
CTb	cholera toxin B subunit
Cu	cuneate nucleus
CV	cardiovascular
CVS	cingulate vocalization subregion
CWP	chronic widespread pain/fibromyalgia
D_1	dopamine receptor
DA	dopamine
DAergic	dopaminergic
daMCC	dorsal anterior midcingulate cortex
DAMGO	[H^3] Tyr–D-ALa–Gly–MePhe–Gly–ol
DAT	dopamine transporter
db	dorsal branch of the splenial sulci
DBH	dopamine-β hydroxylase
DBS	deep brain stimulation
dhSC	dorsal horn of spinal cord
DLB	dementia with Lewy bodies
DLPF, DLPFC	dorsolateral prefrontal cortex
dMCC	dorsal midcingulate cortex
DNFS	descending noxious facilitory system
DNIS	diffuse noxious inhibitory system
DOPAC	3, 4-dihydroxyphenylacetic acid
DP	dorsal prelunate area
dPCC	dorsal posterior cingulate cortex
dPCCdy	dysgranular part of dPCC including area 23d
dPCCgr	granular part of dPCC including areas d23a-b and d31
DPGi	dorsal paragiantocellular nucleus of the reticular formation
dr	dorsal ramus of cingulate sulcus
DRN	dorsal raphe nucleus
DTI	diffusion tensor imaging
DY	Diamidino Yellow
ECD	equivalent current dipoles
ECD	^{99}m-Technetium-ethyl-cisteinate-dimer (Chap. 27)
ECG	external cingulate gyrus
ECT	electroconvulsive shock
EEG	electroencephalogram
EM	electron microscopy
ENT	entorhinal cortex
EP	evoked potentials
Epi	epinephrine
ERN	error-related negativity
ERP	event-related potentials
Et	ethanol
f	fundal areas in monkey; for example, area f24d
FA	fractional anisotropy

FDG	[^{18}F] flurodeoxyglucose
F-DOPA	6[^{18}F]3,4-dihydroxyphenylalanine
FLAIR	fluid attenuated inversion recovery
FM	fibromyalgia
fMRI	functional magnetic resonance imaging
fr	fasciculus retroflexus
FTD	frontotemporal dementia
G	gestational day
GABA	γ-aminobutyric acid
$GABA_A$, $GABA_B$	GABA receptors
GAD	glutamic acid decarboxylase
GBS	Gullain-Barre Syndrome
gcc	genu of corpus callosum
GE	ganglionic eminence
GERD	gastroesophageal reflux disease
Gi	gigantocellular nucleus of the reticular formation
GI	gastrointestinal
Glu	glutamate
GM	medial geniculate nucleus, thalamus
GMpc	parvicellular division of the medial geniculate nucleus, thalamus
GPC	initials of control-case subject
GPe	external segment, globus pallidus
GPi	internal segment, globus pallidus
GSR	galvanic skin response
H, Hb	habenula
HAD	Hospital Anxiety Depression scale
HGS	horizontal plane at the genu and splenium of the corpus callosum
hi	hippocampal fissure
HMPAO	^{99}m-Technetium-D, L-hexamethyl-propyleneamine-oxime
	hit habenulointer-pedulncular nucleus
HPA	hypothalamic-pituitary adrenal axis
HPC	high-pathology controls
HRP	horseradish peroxidase
hth	hypothalamus
HVA	homovanillic acid
Iag, dg, g	insula; agranular, dysgranular, granular
IBS	irritable bowel syndrome
ic	internal capsule
ICMS	intracortical microstimulation
IF	immunofluorescent
IG, IGr	indusium griseum
IL	intralaminar nuclei, thalamus
IML	intermediolateral nucleus of the spinal cord
INS, Ins	insula
IOS, ios	inferior occipital sulcus
IP, IPC	inferior parietal cortex
IPS, ips	intraparietal sulcus
IR, ir	immunoreactive
irs	inferior rostral sulcus
IRt	intermediate reticular nucleus
ISH	*in situ* hybridization
IZ	intermediate zone
kainate	glutamate receptor
L	lateral or left hemisphere
La, Lat	lateral nucleus of amygdala
laf	lateral fissure
LB	lateral basal nucleus of amygdala
LB	Lewy body (Chap.32)
LC	locus coeruleus
LCN	local circuit neuron
LD	laterodorsal nucleus, thalamus
LF, lf	Lateral (or Sylvian) fissure
LH	lateral hypothalamus
LHb	lateral habenular nucleus
Li	limitans nucleus, thalamus
LIP	lateral intraparietal area
los	lateral orbital sulcus
LP	lateral posterior nucleus, thalamus
LPGi	lateral division of paragigantocellular nucleus of the reticular formation
LS,lus	lunate sulcus
LV	lateral ventricle
M	medial
M1	primary motor cortex
M_1, M_2, M_3	muscarinic acetylcholine receptors
M2	supplementary motor cortex
M3	rostral cingulate motor cortex
M4	caudal cingulate motor cortex
MAP2	microtubule-associated protein 2
MB	medial basal nucleus of amygdala
mb	midbrain nuclei
MC1	early conformational change in tau protein
MCC; a, p	midcingulate cortex; anterior and posterior
MCI	mild cognitive impairment
MCS	motor cortex stimulation
MD	major depressive disorder
MD, mf, pc	mediodorsal thalamic nucleus, multiformis and parvocellular divisions
MDdc	densocellular division of the mediodorsal nucleus, thalamus
MDmc	magnocellular division of the mediodorsal nucleus, thalamus
Me	medial nucleus of the amygdala
Me5	mesencephalic nucleus of V or tract of the mesencepalic nucleus of V
MEG	magnetoencephalography
MENK	met–enkephalin
MITN	midline, mediodorsal, and intralaminar thalamic nuclei
ML	midline nuclei, thalamus
mlf	medial longitudinal fasciculus
mOFC	medial orbitofrontal cortex
MOR	mu–opioid receptor
mos	medial orbital sulcus

mPFCx	medial prefrontal cortex
MPH	methylphenidate
mr	marginal ramus of cingulate sulcus
MRI	magnetic resonance imaging
MRS	magnetic resonance spectroscopy
MSIT	multi-source interference task
MST	medial superior temporal area of the superior temporal sulcus
mt	mammillothalamic tract
MTG	middle temporal gyrus
MVe	medial vestibular nucleus
MZ	marginal zone
N	nicotinic acetylcholine receptor
N, NeuN	antibody to neuron-specific nuclear binding protein
NA	noradrenaline
NAA	N-acetylaspartate
ND	neurodegeneration
NE	norepinephrine
NEergic	norepinephrinergic
NeuN	neuron-specific nuclear binding protein
NFP	nonphosphorylated, intermediate neurofilament proteins
NFT	neurofibrillary tangles
NMDA	N-methyl-D-aspartic acid
Noci	nociceptive
NP	non-promidal neurons
NRD	nucleus raphe dorsalis
NSLBP	nonspecific low back pain
NTS	autonomic areas in the medulla (nuc of solitary tract)
OCD	obsessive–compulsive disorder
OF, OFC	orbitofrontal cortex
olf	olfactory sulcus
OPAll	periallocortical region of orbitofrontal cortex
OPro	proisocortical region of orbitofrontal cortex
Opt	area Opt of the occipital and temporal cortices; posterior division of parietal area 7a
OS, os	orbital sulcus
OTS, ots	occipito-temporal sulcus
P	postnatal day
PA	anterior pretectum
Pa	paraventricular nucleus, thalamus
Pac	caudal division of paraventricular nucleus, thalamus
pACC	pregenual anterior cingulate cortex
PAG, dl, l, vl	periaqueductal gray, dorsolateral, lateral, ventrolateral divisions
ParaSub	parasubiculum
PB, l, m	parabrachial nucleus; lateral and medial divisions
PBS	phosphate buffered saline
PC	principal component
Pc, Pcn	paracentral nucleus of thalamus
PCA	principal component analysis (Chap. 34)
PCA	posterior cortical atrophy (Chap. 35)
PCC	posterior cingulate cortex
PCC; d, v	posterior cingulate cortex, dorsal and ventral parts
PCG; d, v	posterior cingulate gyrus; dorsal, ventral
pcgs	paracingulate sulcus
PCNA	proliferating cell nuclear antigen
PCP	phencyclidine
PD	panic disorder (Chap. 21)
PD	Parkinson's disease (Chap. 32)
PDD	Parkinson's disease with dementia
PEa	area PEa of the intraparietal sulcus
PEc	parietal area PEc
PET	positron emission tomography
Pf	parafascicular thalamic nucleus
PFC	prefrontal cortex
Pfm	medial parafascicular nucleus, thalamus
Pfmf	multi-formis parafascicular nucleus, thalamus
PG	parietal area PG
PGi	nucleus paragigantocellularis of the reticular formation
PGm	medial parietal area PG
PHF	paired helical filaments
PHG	parahippocampal gyrus
Pi	inferior pulvinar, thalamus
Pl	lateral pulvinar, thalamus
Pm	medial pulvinar, thalamus
PM6	premotor cortex
pMCC	posterior midcingulate cortex
PN	pyramidal neurons
PNMT	phenylethanolamine-N-methyl transferase
po	parieto-occipital fissure
POa	parietal area POa
pols	parolfactory sulcus
POMS	medial parieto-occipital sulcus
pos	parieto-occipital sulcus
PPC	posterior parietal cortex
PrCC	precuneal cortex; area 7m
Pre-SMA	pre-supplementary motor area
Presub	presubiculum
ProM	proisocortical motor cortex
ProSub	prosubiculum
PS, ps	principle sulcus
PS	parasylvian cortex (Chap. 18)
PSTH	post-stimulus time histogram
Pt	paratenial nucleus, thalamus
pts	paraterminal sulcus
PTSD	posttraumatic stress disorder

pu	putamen
Pul.o	oral division of the pulvinar, thalamus
Pull	lateral pulvinar nucleus, thalamus
Pulm, PuM	medial pulvinar nucleus, thalamus
Pv	paraventricular nucleus, thalamus
PVN	paraventricular nucleus, hypothalamus
R	reticular thalamic nucleus
R	right hemisphere
RBDMT	reward-based decision-making task
rCBF	regional cerebral blood flow
rCMA	rostral cingulate motor area
rCMRglc	basal cerebral metabolic rate of glucose
RCZ	rostral cingulate zone
Re	reuniens nucleus, thalamus
Re	reticular nucleus, thalamus (Chap. 28)
REM	rapid eye movement stage of sleep
rf, rhf	rhinal fissure
Rh	rhomboid nucleus, thalamus
Ro, Ros, rs	rostral sulcus
ROI	regions-of-interest
RS	rhinal sulcus
RSC; d, v	retrosplenial cortex; dorsal, ventral
Rt	reticular thalamic nucleus
rTMS	repetitive transcranial magnetic stimulation
RVM	rostroventral medulla
S, SMI32	antibody for nonphosphorylated neurofilament proteins
S1	primary somatosensory cortex
S2	secondary somatosensory cortex
sACC	subgenual anterior cingulate cortex
Sc	superior colliculus
sCC, scc; s	splenium of the corpus callosum
scp	superior cerebellar peduncle
SEM	standard error of the mean
SEM	structural equation model
SEPs	somatosensory-evoked potentials
SFG	superior frontal gyrus
SG	straight gyrus
SG, Sg	supragenicular nucleus, thalamus
SII	second somatosensory area
Sm, sm, SM	stria medullaris, thalamus
SMA	supplementary motor area
SMG	supramarginal gyrus
SMI32	antibody for non-phosphorylated neurofilament proteins
SN, Pr	substantia nigra, pars reticulate
SOI	subregions-of-interest
SP	senile plaques (Chaps. 33, 35)
SP	superior parietal cortex
Sp5	spinal nucleus of V
SPECT	single-photon emission computed tomogtraphy
Spf	subparafascicular nucleus, thalamus
spls	splenial sulci
SPM	Statistical Parametric Mapping
SRD	subnucleus reticularis dorsalis
srs	superior rostral sulcus
SRT	serial reaction time task
SSA	supplementary somatosensory area
SSRI	selective serotonin reuptake inhibitor (also SRI)
STG	superior temporal gyrus
STN	subthalamic nucleus
STS, sts	superior temporal sulcus
STT	spinothalamic tract
Sub	dorsal subiculum
SubC	subcoerulear nucleus
SZ	subventricular zone
TA	area 22 superior temporal auditory association cortex
TAa	temporal area TAa
Tc^{99m}HMPAO	technetium-^{99}m hexamethylpropylene amine oxime
tCG	terminal cingulate gyrus
TE	area 21, inferior temporal visual cortex
TF and TH	parahippocampal cortex
TF	temporal area TF
TG	temporal pole cortex
TH	temporal area TH
TH	tyrosine hydroxylase (Chap. 7)
thal	thalamus
THI	habenulointerpeduncular tract
Thio	thionin
TL	temporal area TL
TMS	transcronial magnetic stimulation
TMT	trail making test
TPO	area TPO of superior temporal sulcus
TPO	multimodal cortical area in superior temporal sulcus, area 38
Tpt	area Tpt of the temporal lobe
TRD	treatment-resistant depressed
TS	Tourette's syndrome
TS1	temporal area TS1
TSA	transitional somatosensory area
US	unconditional stimulus
V2, V3	visual areas of the occipital lobe
VA	ventral anterior nucleus, thalamus
VAC, VCA	vertical plane at the anterior commissure
VAmc	magnocellular division of the ventral anterior nucleus, thalamus
VApc	parvicellular division of the anterior ventral nucleus, thalamus
VAS	visual analogue scale
vb, vb-spls	ventral branch of the splenial sulci
VBM	voxel-based morphometry
vCd	ventral caudate nucleus
vCG	ventral bank of the cingulate gyrus

VCo	periamygdaloid; also ventral cortical nucleus.
VGC	vertical plane at the genu of the corpus callosum
VL	ventral lateral nucleus, thalamus
VLc	caudal division of the ventral lateral nucleus, thalamus
VLm	medial division of the ventral lateral nucleus, thalamus
VLo	oral division of the ventral lateral nucleus, thalamus
VLPFC	ventrolateral prefrontal cortex
VMPFC	ventromedial prefrontal cortex
VNS	vagal nerve stimulation
VP	ventral posterior nucleus, thalamus
VP	ventral pallidum (Chap. 28)
vPCC	ventral posterior cingulate cortex
VPI	ventral posteroinferior nucleus, thalamus
VPLc	caudal division of the ventral posterolateral nucleus, thalamus
VPLo	oral division of the ventral posterolateral nucleus, thalamus
VPM	ventral posteromedial nucleus, thalamus
VPMpc	parvicellular division of the ventral posteromedial nucleus, thalamus
VSC	vertical plane at the splenium of the corpus callosum
VTA	ventral tegmental area
VZ	ventricular zone
WCST	Wisconsin card sorting test
WGA-HRP	wheat germ agglutinin-horseradish peroxidase
X	area X, thalamus
ZI	zona incerta
α_1, α_2	noradrenaline receptors