

List of Abbreviations

Along with amino acids, cell lines, chemical element and compound symbols, Latin terms, mouse names, statistical symbols and tests, and units of measure, the following specific abbreviations need not be defined.

A1C	hemoglobin A _{1c} or glycosylated hemoglobin
ACE	angiotensin-converting enzyme
ACTH	adrenocortotropic hormone
ADP	adenosine 5'-diphosphate
ADPase	adenosinediphosphatase
AIDS	acquired immunodeficiency syndrome
AICAR	5'-aminoimidazole-4-carboxamide-1- β -D-ribofuranoside
ALT	alanine aminotransferase
AMP	adenosine 5'-monophosphate
AMPase	adenosinemonophosphatase
AMPK	AMP-activated protein kinase
ANCOVA	analysis of covariance
ANOVA	analysis of variance
AST	aspartate aminotransferase
ATCC	American Type Culture Collection
ATG	adenine thymine guanine
ATP	adenosine 5'-triphosphate
ATPase	adenosinetriphosphatase
B_{max}	maximum binding
Bax	Bcl2-associated X protein (rat)
BAX	BCL2-associated X protein (human)
BIP, BiP	binding immunoglobulin protein; luminal binding protein
BMI	body mass index
BrdU	5-bromo-2-deoxyuridine
BSA	bovine serum albumin
cAMP	adenosine 3',5'-cyclic monophosphate
cDNA	complementary DNA
C/EBP	CCAAT/enhancer binding protein
CHES	2-(cyclohexylamino)ethanesulfonic acid
CHO	Chinese hamster ovary (cell line)
CHOP	C/EBP homologous protein
CI	confidence interval
CoA	coenzyme A
CREBP	cAMP-responsive element-binding protein
DAPI	4',6-diamidino-2-phenylindole
DEAE	diethylaminoethyl
DEXA, DXA	dual-energy X-ray absorptiometry
df	degrees of freedom
DMEM	Dulbecco's modified Eagle's medium
DMSO	dimethyl sulfoxide
DNA	deoxyribonucleic acid
DNase	deoxyribonuclease
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition
DTNB	5-5'-dithiobis (2-nitrobenzoic acid)
EDTA	ethylenediaminetetraacetic acid
EGFP	enhanced green fluorescent protein
EGTA	ethylene glycol-bis(β -aminoethyl ether)- <i>N,N,N',N'</i> -tetraacetic acid
ELISA	enzyme-linked immunosorbent assay
FACS	fluorescence-activated cell sorter
FBS	fetal bovine serum
FCS	fetal calf serum

FFI	2-(2-furoyl)-4-(5)-(2-furanyl)-1H-imidazole
FITC	fluorescein isothiocyanate
FOXO	forkhead box class O
GAD	glutamic acid decarboxylase
GAPDH	glyceraldehyde-3-phosphate dehydrogenase
GLUT	glucose transporter
HDL	high-density lipoprotein
HEPES	N-2-hydroxyethylpiperazine-N'-2-ethanesulfonic acid
HIV	human immunodeficiency virus
HLA	human leukocyte antigen
HMG	hydroxymethylglutaryl (as in HMG-CoA reductase)
HOMA	homeostasis model assessment
hs-CRP	high-sensitivity C-reactive protein
hsp, Hsp, HSP	heat shock protein
IA2	insulinoma-associated protein 2
IC₅₀	half-maximal inhibitory concentration
ICD-	<i>International Classification of Diseases</i> , _th revision
IDL	intermediate-density lipoprotein
Ig	immunoglobulin
IGF-I	insulin-like growth factor I
INS-1, ins1	insulin 1
JDFU	Juvenile Diabetes Foundation units
K_d	dissociation constant
K_i	inhibition constant
K_m	Michaeli's constant
LD₅₀	median lethal dose
LDL	low-density lipoprotein
ln	natural logarithm
log	logarithm
log₁₀	logarithm (base 10)
log_e	logarithm (base e)
MANOVA	multiple analysis of variance
MCP	monocyte chemoattractant protein
MDRD	Modification of Diet in Renal Disease
MELAS	mitochondrial myopathy, encephalopathy, lactic acidosis, stroke-like episodes
MET	metabolic equivalent task
MHC	major histocompatibility complex
MIM	Mendelian Inheritance in Man
miRNA	microRNA
MOPS	3-(N-morpholino)propanesulfonic acid
M_r	relative molecular mass
mRNA	messenger RNA
MRI	magnetic resonance imaging
MRS	magnetic resonance spectroscopy
mtDNA, mDNA	mitochondria DNA
NAD	nicotinamide adenine dinucleotide
NADH	reduced NAD
NADP	NAD phosphate
NADPH	reduced NADP
NGSP	National Glycohemoglobin Standardization Program
NPO	nil per os (nothing by mouth)
NPH	neutral protamine Hagedorn insulin
PAGE	polyacrylamide gel electrophoresis
PBS	phosphate-buffered saline
PCO₂, PACO₂, P_VCO₂	partial pressure of CO ₂ , arterial, venous
PO₂, PAO₂, P_VO₂	partial pressure of O ₂ , arterial, venous
PCR	polymerase chain reaction

PDX-1	pancreatic duodenal homeobox-1
PEPCK	phosphoenolpyruvate carboxykinase
pH	hydrogen ion concentration; negative logarithm of hydrogen ion activity
PIPES	piperazine-N,N'-bis(2-ethanesulfonic acid)
QT	(as in Q and T waves)
QTc	corrected QT (interval)
QUICKI	quantitative insulin sensitivity check index
R_a	rate of appearance
R_d	rate of disappearance (glucose disposal rate)
rDNA	ribosomal DNA
R_g	rate of glucose uptake
RNA	ribonucleic acid
RNase	ribonuclease
RPMI medium	Roswell Park Memorial Institute medium; RPMI 1640 medium
R-R	(as in R-R interval)
rRNA	ribosomal RNA
RT-PCR	reverse transcriptase–polymerase chain reaction
SAS	Statistical Analysis System
SD	standard deviation
SDS	standard deviation score
SDS-PAGE	sodium dodecyl sulfate–polyacrylamide gel electrophoresis
SE	standard error
SEM	standard error of the mean
SF-36	36-item short-form health survey
shRNA	short hairpin RNA
siRNA	small interfering RNA
S_i, SI, Si, ISI	insulin sensitivity index
SPSS	(statistical analysis software)
SREBP	sterol regulatory element–binding protein
ssDNA	single-stranded DNA
STAT	signal transducer and activator of transcription
Tes	N-tris(hydroxymethyl)methyl-2-aminoethanesulfonic acid
T_m	transport rate (maximum)
Tris	tris(hydroxymethyl)aminomethane
tRNA	transfer RNA
TUNEL	transferase-mediated dUTP nick-end labeling
v/v	volume for volume
v/w	volume for weight
VLDL	very low-density lipoprotein
V_{max}, VO₂, VO_{2max}	maximum volume, volume of O ₂ , maximum volume of O ₂
V_{max}, VO₂, VO_{2max}	maximum consumption, O ₂ consumption per unit time, maximum O ₂ consumption
V_{max}, VCO₂, VCO_{2max}	maximum volume, volume of CO ₂ , maximum volume of CO ₂
V_{max}, VCO₂, VCO_{2max}	maximum production, CO ₂ production per unit time, maximum CO ₂ production
VO_{2peak}	peak oxygen uptake
w/v	weight for volume
w/w	weight for weight