

JCI standard abbreviations, October 30, 2018

A, ampere(s)	cM, centimorgan(s)	EGFP, enhanced GFP
Å, angstrom unit(s)	C_{max} , maximum [peak] concentration	EGFR, EGF receptor
aa, amino acid(s)	C_{min} , minimum [trough] concentration	EGTA, ethyleneglycol-bis-(β -aminoethylether)- <i>N,N,N',N'</i> -tetraacetic acid
Ab, antibody	CMP, cytidine monophosphate (CDP, CTP)	ELISA, enzyme-linked immunosorbent assay
AIDS, acquired immunodeficiency syndrome	CMV, cytomegalovirus	EMSA, electrophoretic mobility shift assay
AKT, v-akt murine thymoma viral oncogene	CNRS, Centre National de la Recherche Scientifique	ER, endoplasmic reticulum
homolog 1	CNS, central nervous system	ERK, extracellular signal-regulated kinase
ALS, amyotrophic lateral sclerosis	CoA, coenzyme A	°F, degrees Fahrenheit
AMP, adenosine monophosphate (ADP, ATP)	COX, cyclooxygenase	FACS, fluorescence-activated cell sorting
AMPK, AMP kinase	cpm, count(s) per minute	F-actin, filamentous actin
ANCOVA, analysis of covariance	CRISPR, clustered regularly interspaced short palindromic repeats	FBS, fetal bovine serum
ANOVA, analysis of variance	CSA, colony-stimulating activity	Fc, crystallizable fragment [of immunoglobulin molecule]
ATPase, adenosine triphosphatase (AMPase, ADPase)	CSF, colony-stimulating factor	FCS, fetal calf serum
AU, arbitrary unit(s)	Ct, threshold cycle	FDA, Food and Drug Administration
AUC, area under the curve	CT, computed tomography	FDR, false discovery rate
BAC, bacterial artificial chromosome	CXCL, CXC chemokine ligand	FFPE, formalin-fixed, paraffin-embedded
β -gal, β -galactosidase	CXCR, CXC chemokine receptor	FGF, fibroblast growth factor
BM, bone marrow		FISH, fluorescence in situ hybridization
BMI, body mass index	d, day(s)	FITC, fluorescein isothiocyanate
BMP, bone morphogenetic protein	<i>d</i> , density	<i>fl</i> , floxed
bp, base pair(s)	3D, 3-dimensional	Fox, Forkhead box
BP, blood pressure	Da, dalton(s)	ft, foot, feet
bpm, beat(s) per minute	DAB, 3,3'-diaminobenzidine	FWER, family-wise error rate
BRAF, v-raf murine sarcoma viral oncogene	DAPI, 4',6'-diamidino-2-phenylindole	
homolog B	DC, dendritic cell	g, gram(s)
BrdU, bromodeoxyuridine	DEAE, diethylaminoethyl	<i>g</i> , unit(s) of gravity
BSA, bovine serum albumin	Δ (delta), change in, change of	GABA, γ -aminobutyric acid
BTU, British thermal unit(s)	DFG, Deutsche Forschungsgemeinschaft	GAP, GTPase-activating protein
BW, body weight	DMEM, Dulbecco's modified Eagle medium	GAPDH, glyceraldehyde-3-phosphate dehydrogenase
°C, degrees Celsius	DMSO, dimethylsulfoxide	GEF, guanine nucleotide exchange factor
cAMP, cyclic adenosine monophosphate (cGMP)	DNA, deoxyribonucleic acid	GFP, green fluorescent protein
Cas9, CRISPR-associated protein 9	dpc, day(s) post coitum	GM-CSF, granulocyte macrophage colony-stimulating factor
CCL, CC chemokine ligand	dpf, day(s) post fertilization	GMP, guanosine monophosphate (GDP, GTP)
CCR, CC chemokine receptor	dp/dt , first derivative of pressure measured over time	GPCR, G protein-coupled receptor
CD, cluster of differentiation (CD4, CD8)	dp/dV , pressure per unit change in volume	GWAS, genome-wide association study/studies
CDC, Centers for Disease Control and Prevention	dpm, disintegration(s) per minute	Gy, gray(s)
cDNA, complementary DNA	dsDNA, double-stranded DNA	
CDP, cytosine diphosphate	dsRNA, double-stranded RNA	h, hour(s)
C/EBP, CCAAT/enhancer-binding protein	DTT, dithiothreitol	HA, hemagglutinin
CFA, complete Freund's adjuvant	E1, embryonic day 1 (E2, E3)	HBSS, Hanks balanced salt solution
CFSE, carboxyfluorescein diacetate succinimidyl ester	EBV, Epstein-Barr virus	HBV, hepatitis B virus
CFU, colony-forming unit(s)	EC ₅₀ , 50% effective concentration	HDL, high-density lipoprotein
ChIP, chromatin immunoprecipitation	ECG, electrocardiogram, electrocardiography	H&E, hematoxylin and eosin
CHO, Chinese hamster ovary	ECL, enhanced chemiluminescence	HEPES, <i>N</i> -2-hydroxyethylpiperazine- <i>N'</i> -2-ethanesulfonic acid
Ci, curie(s)	<i>E. coli</i> , <i>Escherichia coli</i>	HGF, hepatocyte growth factor
CI, confidence interval	ED ₅₀ , 50% effective dose	HIF, hypoxia-inducible factor
c-KIT, CD117, mast/stem cell growth factor receptor, protooncogene c-KIT	EDTA, ethylenediamine tetraacetic acid	HIV, human immunodeficiency virus
	EEG, electroencephalogram	
	EGF, epidermal growth factor	

(HIV-1, HIV-2)
HLA, human leukocyte antigen
HMG, 3-hydroxy-3-methyl-glutaryl
HPLC, high-performance liquid chromatography
HPV, human papilloma virus
HR, hazard ratio
HRP, horseradish peroxidase
HSA, human serum albumin
hsp, heat shock protein
HUVEC, human umbilical vein endothelial cell

i, electric current
IACUC, Institutional Animal Care and Use Committee
IB, immunoblot
IC₅₀, 50% inhibitory concentration
ICAM, intercellular adhesion molecule
ICOS, inducible costimulatory molecule
i.c.v., intracerebroventricular(ly)
ID₅₀, 50% infective dose
IDL, intermediate-density lipoprotein
IFN, interferon
Ig, immunoglobulin (IgE, IgG)
IGF, insulin-like growth factor
IHC, immunohistochemistry
IκB, inhibitor of NF-κB (IκBα, IκBβ)
IL, interleukin (IL-12)
i.m., intramuscular(ly)
IMDM, Iscove's modified Dulbecco's medium
i.n., intranasal(ly)
in., inch(es)
INSERM, Institut National de la Santé et de la Recherche Médicale
i.p., intraperitoneal(ly)
IP, immunoprecipitation
IQR, interquartile range
IRB, institutional review board
ISH, in situ hybridization
IU, international unit(s)
i.v., intravenous(ly)

JAK, Janus kinase
JNK, c-Jun NH₂-terminal kinase
JUN, Jun protooncogene

°K, degree(s) Kelvin
K_A, association constant
kb, kilobase(s)
kcal, kilocalorie(s)
K_D, dissociation constant
kDa, kilodalton(s)
K_i, inhibition constant
K_m, Michaelis-Menten constant
KO, knockout

L, liter(s)
LD₅₀, 50% lethal dose
LDL, low-density lipoprotein
lod, log odds ratio
LPS, lipopolysaccharide
LUC, luciferase
m, meter(s)
M, molar
mAb, monoclonal Ab
MALDI, matrix-assisted laser desorption/ionization
MAPK, mitogen-activated protein kinase
Mb, megabase
2-ME, 2-mercaptoethanol
MEK, MAPK kinase
MEM, Eagle minimal essential medium
mEq, milliequivalent
MFI, mean fluorescence intensity
MHC, major histocompatibility complex
min, minute(s)
miRNA, microRNA
mmHg, millimeter(s) of mercury
MMP, matrix metalloproteinase
mo, month(s)
MOI, multiplicity(ies) of infection
mol, mole(s)
MOPS, 3-(N-morpholino)propanesulfonic acid
M_r, relative molecular mass
MRI, magnetic resonance imaging
mRNA, messenger RNA
ms, millisecond(s)
mTOR, mammalian target of rapamycin
MTT assay, 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyl tetrazolium bromide assay
MW, molecular weight
Myc, V-myc myelocytomatosis viral oncogene homolog (avian)

n, number in group
N, normal [solution]
N, total sample size
NA, not applicable
NAD, nicotinamide adenine dinucleotide
NADH, reduced NAD
NADPH, reduced NAD phosphate
NF-κB, nuclear factor κB
NIH, National Institutes of Health
NK, natural killer [cell]
NKT, natural killer T [cell]
NLR, Nod-like receptor
NMDA, N-methyl-D-aspartate
NMR, nuclear magnetic resonance
no., number
NO, nitric oxide
NOD, nonobese diabetic
NOR, nonobese resistant

NOS, NO synthase
NP-40, Nonidet P-40
NS, not significant
NSAID, nonsteroidal antiinflammatory drug
nt, nucleotide(s)

OCT, optimal cutting temperature [compound]
OD, optical density
OR, odds ratio
ORF, open reading frame
osm, osmole(s)
OVA, ovalbumin

P, phosphate (PO₄)
P, probability
P1, postnatal day (P1, P2, P3)
PAGE, polyacrylamide gel electrophoresis
PBMC, peripheral blood mononuclear cell
PBS, phosphate-buffered saline
PCR, polymerase chain reaction
PDGF, platelet-derived growth factor
PDGFR, PDGF receptor
PECAM, platelet-endothelial cell adhesion molecule
PEG, polyethylene glycol
PET, positron emission tomography
PFU, plaque-forming unit(s)
pg, picogram(s)
pH, hydrogen ion concentration
pI, isoelectric point
PI3K, phosphatidylinositol-3'-kinase
PIPES, piperazine-N,N'-bis(2-ethanesulfonic acid)
PKC, protein kinase C (PKA, PKB)
PLC, phospholipase C
PMA, phorbol myristate acetate
PMN, polymorphonuclear cell
PMSF, phenylmethylsulfonyl fluoride
PNS, peripheral nervous system
PPAR, peroxisome proliferator-activated receptor (PPARγ)
psi, pound(s) per square inch
PVDF, polyvinylidene difluoride

r, correlation coefficient
RAB, RAS-related GTP-binding protein
rad, radiation-absorbed dose
RAG, recombination-activating gene
RANK, receptor activator of NF-κB
RANKL, RANK ligand
RANTES, regulated on activation, T cell expressed, and secreted
RAS, rat sarcoma viral oncogene homolog
RBC, red blood cell
RFLP, restriction fragment length polymorphism

RHO, Ras homolog family	SRC, protooncogene tyrosine-protein kinase	UCSD, University of California, San Diego
RIA, radioimmunoassay	SREBP, sterol regulatory element-binding protein	UCSF, University of California, San Francisco
RIPA, radioimmunoprecipitation assay	SSC, standard saline citrate	UMP, uridine monophosphate (UDP, UTP)
RLU, relative light unit(s)	ssDNA, single-stranded DNA	UTR, untranslated region
RNA, ribonucleic acid	STAT, signal transducer and activator of transcription	UV, ultraviolet
RNAi, RNA interference		
ROS, reactive oxygen species		
rpm, revolution(s) per minute		
RPMI, Roswell Park Memorial Institute [medium]	<i>t</i> , time	V, volt(s)
rRNA, ribosomal RNA	$t_{1/2}$, half-life	VCAM, vascular cell adhesion molecule
RTK, receptor tyrosine kinase	TALEN, transcription activator-like effector nuclease	VEGF, vascular endothelial growth factor
RU, resonance unit(s)	TBS, triethanolamine-buffered saline	VEGFR, VEGF receptor
	TCA, tricarboxylic acid	VLDL, very low-density lipoprotein
s, second(s)	Tg, transgene, transgenic	V_{max} , maximum velocity
SARS, severe acute respiratory syndrome	TGF, transforming growth factor	vol, volume
s.c., subcutaneous(ly)	Th, T helper [cell] (Th1, Th2)	vWF, von Willebrand factor
SCID, severe combined immunodeficiency disease	TLC, thin-layer chromatography	
SD, standard deviation	TLR, Toll-like receptor	W, watt(s)
SDS, sodium dodecylsulfate	TNF, tumor necrosis factor	WBC, white blood cell
SEM, standard error of the mean	TOF, time-of-flight (MALDI/TOF)	WHO, World Health Organization
-Seq, sequencing (suffix for RNA-Seq, ChIP-Seq, etc.)	TRAIL, TNF-related apoptosis-inducing ligand	wk, week(s)
sgRNA, single-guide RNA	Treg, regulatory T cell	WNT, wingless-type MMTV integration site family
SH2, Src homology 2	Tris, tris(hydroxymethyl)-aminomethane	wt, weight
shRNA, short hairpin RNA	TRITC, tetra-rhodamine isothiocyanate	WT, wild-type
siRNA, small interfering RNA	TUNEL, terminal deoxynucleotidyl transferase-mediated dUTP nick end labeling	
SIV, simian immunodeficiency virus		yr, year(s)
SMAD, SMAD family member(s)		
SNP, single nucleotide polymorphism	U, unit(s)	
SOCS, suppressor of cytokine signaling	UCD, University of California, Davis	
SOD, superoxide dismutase	UCLA, University of California, Los Angeles	