

JID ABBREVIATION GUIDE

STANDARD ABBREVIATIONS (Abbreviations That Do Not Need to Be Spelled Out)

2D-PAGE	two-dimensional polyacrylamide gel electrophoresis
A	alanine
ACTH	adrenocorticotropic hormone
ATCC	American Type Culture Collection
BrdU	5-bromodeoxyuridine
BSA	bovine serum albumin
cAMP	cyclic adenosine monophosphate
cGMP	cyclic guanosine monophosphate
CAT	chloramphenicol acetyltransferase
DMEM	Dulbecco's modified Eagle's medium or Dulbecco's modified minimal Eagle's medium
DMSO	dimethyl sulfoxide
DNFB	2,4-dinitrofluorobenzene
<i>E. coli</i>	<i>Escherichia coli</i>
EDTA	ethylenediaminetetraacetic acid
EGFR	epidermal growth factor receptor
EGTA	ethylene glycol-bis(β-aminoethyl ether)-N,N,N',N'-tetraacetic acid
ELISA	enzyme-linked immunosorbent assay
EMEM	Eagle's minimum essential medium
FACS	fluorescence-activated cell sorter (or sorting)
FITC	fluorescein isothiocyanate
GM-CSF	granulocyte–macrophage colony-stimulating factor

HaCaT cells

HIV	human immunodeficiency virus; HIV-1, HIV-2
HLA	human leukocyte antigen
HPLC	high-pressure liquid chromatography
ICAM	intracellular adhesion molecule
ICAM-1	intercellular adhesion molecule-1
IFN	interferon
IFN-α	interferon-α
IFN-γ	Interferon-γ
IFN-1	type 1 interferon
Ig	immunoglobulin (IgE, etc.)
IGF	insulin-like growth factor
IκB	inhibitor κB
IL	interleukin; IL-1, IL-2
IL-1α	interleukin-1α
IL-6	interleukin-6
IP3	inositol 1,4,5-trisphosphate
IRE	interferon response element

Jak	Janus kinase
Km	Michaelis-Menten constant
L	leucine
LOD	logarithm of the odds
mAb	monoclonal antibody
MEM	Modified Eagle's Medium
mg	milligram
min	minute (abbreviation may be ONLY used in tables, NOT text)
ml	milliliter
mo	month (abbreviation may be used ONLY in tables, NOT text)
mtDNA	mitochondrial DNA
NF- κ B	nuclear factor- κ B
PAGE	polyacrylamide gel electrophoresis
PCR	polymerase chain reaction
Rb	retinoblastoma tumor-suppressor gene
r.p.m.	revolutions per minute
RPMI	Roswell Park Memorial Institute (a culture medium)
s	second (abbreviation may be used ONLY in tables, NOT text)
SDS	sodium dodecyl sulfate
SDS-PAGE	sodium dodecyl sulfate–polyacrylamide gel electrophoresis
TCR	T-cell receptor
TUNEL	TdT-mediated dNTP nick end labeling
UC	ulcerative colitis
UV	ultraviolet
UVA, UVB	ultraviolet light A; ultraviolet light B
UVR	ultraviolet radiation
V	valine
wk	week (abbreviation may be used ONLY in tables, NOT text)
Y	tyrosine
μ g	microgram
μ l	microliter

RECOMMENDED ABBREVIATIONS

(Abbreviations That Should Be Spelled Out On First Use)

If used fewer than five times, spell out the abbreviation each time.

[Ca2+]	intracellular calcium concentration
2DE	two-dimensional gel electrophoresis
6-4PP	pyrimidine-pyrimidone (6-4) photoproducts
8-MOP	8-methoxysoralen
AA	arachidonic acid
Ab	antibody
ACD	allergic contact dermatitis
AchR	acetylcholine receptor
AD	atopic dermatitis
aFGF	acidic fibroblast growth factor
Ag	antigen
AIF	apoptosis-inducing factor
Akt	acutely transforming retrovirus AKT8 in rodent T cell lymphoma
ALDH	aldehyde dehydrogenase
α-MSH	α-melanocyte-stimulating hormone
anti-TCR	anti-T-cell receptor
AP-1	activator protein-1
APC	antigen-presenting cell
apoB	apolipoprotein B (but the gene is <i>ApoB</i> ; not spelled out)
AR	androgen receptor
AS-PCR	allele-specific PCR
ATRA	all- <i>trans</i> -retinoic acid
AU	arbitrary unit
AUC	area under the curve
BCC	basal cell carcinoma
BCL	basal cell layer
BK	bradykinin
BM	basement membrane
BMP	bone morphogenic protein
BPS	Bart-Pumphrey syndrome
β ₂ m	β ₂ microglobulin
CAM	chorioallantoic membrane
CD	contact dermatitis
CD	Crohn's disease
CDSN	corneodesmosin
CE	cornified envelope
CER	ceramide
cFN	cellular fibronectin
CHOL	cholesterol
CHS	contact hypersensitivity
CI	confidence interval
CK	creatine kinase
CM	conditioned medium
COMT	catechol-O-methyltransferase
COX-2	cyclooxygenase 2
CPD	cyclobutane pyrimidine dimers

Cpm	counts per minute
CREB	CRE-binding protein
CRH	corticotropin-releasing hormone
CRT	creatine transporter
CsA	cyclosporin A (but note spelling of "cyclosporine" alone)
CTCL	cutaneous T-cell lymphoma
CTGF	connective-tissue growth factor
CTL	cytotoxic T lymphocyte
CTSL	cysteine protease cathepsin L
D	aspartic acid
d	day (abbreviation may ONLY be used in tables, NO text)
DAG	diacylglycerol
DC	dendritic cell
DCT	dopachrome tautomerase
DD	death domain
dDC	dermal dendritic cell
DED	de-epidermized dermis
DEJ	dermal-epidermal junction
DELM	digital epiluminescence microscopy
DHA	docoahexaenoic acid
DHEA	dehydroepiandrosterone
DHI	dihydroxyindole
DHICA	dihydroxyindole carboxylic acid
DHT	dihydrotestosterone
DIG	digoxigenin
DM	desmoplastic melanoma
DMBA	7,12-dimethylbenz[a]anthracene
DP	dermal papilla
DSAP	disseminated superficial actinic porokeratosis
DSG	desmoglein
DSP	disseminated superficial porokeratosis
DTH	delayed type hypersensitivity
DZ	dizygous
EB	epidermolysis bullosa
EB-MD	EB with muscular dystrophy
EB-PA	EB with pyloric atresia
EBS	epidermolysis simplex bullosa
EBV	Epstein-Barr virus
ECM	extracellular matrix
ED	ectodermal dysplasia
EDS	Ehlers-Danlos syndrome
EH	epidermolytic hyperkeratosis
EKV	erythrokeratoderma variabilis
EL	extracellular loops
EMSA	electrophoretic mobility shift assay
EPA	eicosapentaenoic acid
EPP	erythropoietic protoporphyria
EPR	electron paramagnetic resonance
EPU	epidermal proliferative unit
ER	endoplasmic reticulum
ERK	extracellular signal-regulated kinase

Er:YAG	erbium:yttrium-aluminum-garnet
EST	expressed sequence tag
ET	endothelin
ET-1	endothelin-1
ET-3	endothelin-3
ETA	exfoliative toxin
FA	fatty acid
FADD	Fas-associated death domain protein
FALDH	fatty aldehyde dehydrogenase
FAME	fatty acid methyl esters
Fas-L	Fas ligand
FCS	fetal calf serum
FBS	fetal bovine serum
FES	fluorescence excitation spectroscopy
FFA	free fatty acid
FLIP	FLICE inhibitory protein
FN	fibronectin
FS	fogo selvagem
g	gram
GAPDH	glyceraldehyde-3-phosphate dehydrogenase
GF	growth factor
GlcCer	glucosylceramide
GlcCer'ase	glucosylceramide- β -glucosidase
gp100	glycoprotein 100
GPCR	G-protein coupled receptors
GR	glycyrrhizin
GTP	guanosine triphosphate
GVHD	graft-versus-host disease
h	hour (abbreviation may ONLY be used in tables, NOT text)
H&E	hematoxylin and eosin
HA	hyaluronate
HABC	hyaluronan binding complex
HAS	hyaluronate synthase
hBD2	human β -defensin 2
HB-EGF	heparin-binding EGF
HD	hemidesmosome
HDF	human dermal fibroblast
HEK	human embryonic kidney
HERV-K	human endogenous retrovirus-K
HF	hair follicle
HFF	primary human foreskin fibroblast
HGF	hepatocyte growth factor
HHD	Hailey-Hailey disease
HJEB	Herlitz junctional epidermolysis bullosa
HK	human keratinocyte
HKF	primary human foreskin keratinocyte
HMEC-1	human dermal microvascular endothelial cell
HMW-MAA	high molecular weight melanoma-associated antigen
HPS	Hermansky-Pudlak Syndrome
HPV	human papillomavirus
HPTLC	high-performance thin-layer chromatography

HRP	horseradish peroxidase
HSC	hematopoietic stem cell
HSP	heat shock protein
HUDEC	human dermal endothelial cells
HUVEC	human umbilical vein endothelial cells
IAP	inhibitor of apoptosis
IBD	inflammatory bowel disease
ICL	interstrand cross-linked
IF	immunofluorescence
IF	intermediate filament
IL-1F6	IL-1 family member 6
iNOS	inducible nitric oxide synthase
IPF	immune protection factor
IP3R	inositol 1,4,5-trisphosphate receptor
IR	infrared
IRS	inner root sheath
i.v.	intravenous
JEB	junctional EB
JNK	c-Jun N-terminal kinase
K	keratin (ONLY if used with a number, such as K17 for keratin 17)
KC	keratinocyte
KCM	keratinocyte-conditioned medium
KGF	keratinocyte growth factor
KGM-2	keratinocyte grown medium-2
KLK	kallikrein
KSC	keratinocyte stem cell
KSFM	keratinocyte serum-free medium
LB	lamellar bodies
LBK	Lys-bradykinin
LC	Langerhans cell (note no apostrophe)
LC	liquid chromatography
LEKTI	lympho-epithelial Kazal-type-related inhibitor
LEOPARD syndrome	multiple lentigines, electrocardiographic abnormalities, ocular hypertelorism, pulmonary stenosis, abnormalities of genitalia, growth retardation, and deafness
LFA	lymphocyte function-associated protein
LFA-1	lymphocyte function-associated antigen-1
LOXL	lysyl oxidase-like
LPA	lysophosphatidic acid
LPP	long periodicity phase
LPS	lipopolysaccharide
LRC	label retaining cell
Ltbp1	latent TGF- β -binding protein 1
LVV	lentiviral vectors
MAP	microtubule associated protein
MAP	mitogen-activated protein
MAPK	mitogen-activated protein kinase
MC	mast cells
MCAM	melanoma cell adhesion molecule
MCP-1	monocyte chemotactic protein-1
MCSP	melanoma chondroitin sulfate proteoglycan

MDR	multiple-drug resistance
MED	minimal erythema dose
MEK	MAPK/ERK kinase
MEKK-1	MAPK kinase kinase-1
Mel-CAM	melanoma cell-adhesion molecule
MHC I, II	major histocompatibility complex I, II
MIF	macrophage migration inhibitory factor
MITF	microphthalmia-associated transcription factor
MMP	matrix metalloproteinase or mucous membrane pemphigoid
MS	mass spectrometry
MSH	melanocyte stimulating hormone
MT	microtubule
MZ	monozygous
NAC	<i>N</i> -acetylcysteine
Nd:YAG	neodymium:yttrium-aluminum-garnet
NER	nucleotide excision repair
NF	neurofilament
NGF	nerve growth factor
NGFR	nerve growth factor receptor
NHEK	normal human epidermal keratinocytes
NHK	normal human keratinocytes
NHM	normal human melanocytes
NMSC	non-melanoma skin cancer
NS	Netherton syndrome
OA	oleic acid
OCA	oculo-cutaneous albinism
OR	odds ratio
ORF	open reading frame
ORS	outer root sheath
OSM	oncostatin M
PA	pili annulati
Psa	psoriatic arthritis
PAD	peptidylarginine deiminase
PAH	phenylalanine hydroxylase
PAR	protease-activated receptor
PAR2	protease-activated receptor 2
PAR-2	proteinase-activated receptor-2
PAS	periodic acid Schiff
PASI	psoriasis area and severity index
PB	phosphate buffer
PBL	peripheral blood lymphocytes
PBMC	peripheral blood mononuclear cells
PBS	phosphate buffered saline
PCNA	proliferating cell nuclear antigen
PCr	phosphocreatine
PCR-RFLP	PCR-restriction fragment length polymorphism
PCT	porphyria cutanea tarda
PDGF	platelet-derived growth factor
PDI	protein disulfide isomerase
PE	phycoerythrin
PF	pemphigus foliaceus

PGE ₂	prostaglandin E ₂
P-gp	P-glycoprotein
PKA	protein kinase A
PKB/Akt	protein kinase B
PKC	protein kinase C
PI3	phosphatidylinositol 3
PMA	phorbol 12-myristate 13-acetate
P-MAPK	phosphorylated MAPK
pNPP	<i>p</i> -nitrophenyl phosphate
Poly(IC)	polyinosinic-polycytidyllic acid
PP	peroxisome proliferator
PPAR- α	peroxisome proliferator-activated receptor- α
PPK	palmoplantar keratoderma
PPP	pustulosis palmoplantaris
ppRb	hyperphosphorylated Rb
PTK	protein tyrosine kinase
PTX	pertussis toxin
PUFA	polyunsaturated fatty acid
PUVA	psoralen plus UVA
PV	psoriasis vulgaris or pemphigus vulgaris
QPCR	quantitative reverse transcriptase in real time
QRT-PCR	quantitative real-time reverse transcriptase-PCR
RA	retinoic acid
RAL	retinaldehyde
RAR	retinoic acid receptor
RARE	retinoic acid-responsive element
RBD	Ras-binding domain
RDEB	recessive dystrophic epidermolysis bullosa
REK	rat epidermal keratinocyte
RFC	replication factor C
RGP	radial growth phase
RNAi	RNA interference
ROS	reactive oxygen species
RSK	ribosomal S6 kinase
RT	room temperature
RT-PCR	reverse transcriptase-PCR
SAPK	stress-activated protein kinase
SC	stem cell
SCC	squamous cell carcinoma
SCF	stem cell factor
SD	standard deviation
SD	seborrheic dermatitis
SE	skin equivalent
SE	standard error
SED	standard erythema dose
sFas-L	soluble Fas ligand
SFM	serum-free medium
SG	stratum granulosum
siRNA	small interfering RNA
SIV	simian immunodeficiency virus
SK	seborrheic keratoses

SPF	sun protection factor
SPINK5	serine protease inhibitor Kazal-type 5
sPLA ₂	secreted phospholipase A ₂
SS	stratum spinosum
SSc	systemic sclerosis
SSH	suppression subtractive hybridization
STAT	signal transducer and activator of transcription
STI	soybean trypsin inhibitor
SV40	simian virus 40
TAC	transit amplifying cell
TACE	TNF-α converting enzyme
TBS	Tris-buffered saline
TCDD	2,3,7,8-tetrachlorodibenzo- <i>p</i> -dioxin
TEM	transmission electron microscopy
TEN	toxic epidermal necrolysis
TEWL	transepidermal water loss
TGF-β1	transforming growth factor-β1
Th1	T helper type 1
TIMP	tissue inhibitor of metalloproteinase
TIMP-3	tissue inhibitor of metalloproteinase-3
TLR4	toll-like receptor 4
T-MAPK	total MAPK
TNF	tumor necrosis factor
TNF-α	tumor necrosis factor-α
TPA	12-O-tetradecanoylphorbol-13-acetate
TRAIL	tumor necrosis factor-related apoptosis-inducing ligand
TRAIL-R	tumor necrosis factor-related apoptosis-inducing ligand receptor
Treg	regulatory T cell
TT	tetanus toxoid
VEGF	vascular endothelial growth factor
VEGFR	vascular endothelial growth factor receptor
VGP	vertical growth phase
WW	wet weight
XAF1	XIAP-associated factor 1
XIAP	X-linked inhibitor of apoptosis
XP	xeroderma pigmentosum
y	year (abbreviation may be used in tables, not text)
YFP	yellow fluorescent protein