

## Abbreviations

Nonstandard abbreviations and acronyms must be defined in the list of abbreviations following the abstract, keywords, and precis, and must also be defined in the text when first used. Abbreviations can only be used for terms/phrases that are used more than three times in the article. Abbreviations, acronyms, and their definitions must be consistent throughout the text.

The following standard abbreviations, as well as common abbreviations of units of measure (e.g. mg, l, kDa, etc.), can be used without spelling out the complete word:

5-FU	5-fluorouracil
aa	amino acid ( <i>only with numbers</i> )
Ab	antibody
ACT	adoptive cell therapy
ADP	adenosine 5'-diphosphate
Ag	antigen
AIDS	acquired immunodeficiency syndrome
allo-SCT	allogeneic stem cell transplantation
ANOVA	analysis of variance
APC	antigen-presenting cell
ATP	adenosine triphosphate
BCG	Bacille Calmette-Guerin
BM	bone marrow
BMT	bone marrow transplantation
BSA	bovine serum albumin
cAMP	cyclic adenosine monophosphate
CAR	chimeric antigen receptor
CD	cluster of differentiation
cDNA	complementary DNA
cGMP	guanosine 3',5'-cyclic monophosphate
CMV	cytomegalovirus
Con A	concanavalin A
COX	cyclooxygenase
CpG	cytosine guanine dinucleotide
cpm	counts per minute
CSF	colony-stimulating factor
CTL	cytotoxic T lymphocyte
CTLA	cytolytic T lymphocyte-associated Ag
DAPI	4',6'-diamidino-2-phenylindole
DC	dendritic cell
DMEM	Dulbecco's modified Eagle's medium
DMSO	dimethylsulfoxide
DNA	deoxyribonucleic acid
DNase	deoxyribonuclease
EDTA	ethylenediaminetetraacetic acid
EGFR	epidermal growth factor receptor
ELISA	enzyme-linked immunosorbent assay
ELISPOT	enzyme-linked immunospot
E:T ratio	effector to target ratio

Fab	Ag-binding fragment
FACS	fluorescence-activated cell sorter/sorting
FBS	fetal bovine serum
FcR	Fc receptor
FCS	fetal calf serum
FITC	fluorescein isothiocyanate
FOXP3	forkhead box p3
G-CSF	granulocyte CSF
GFP	green fluorescent protein
GM-CSF	granulocyte-macrophage CSF
GMP	good manufacturing practice
GvHD	graft-versus-host disease
H&E	hematoxylin and eosin
HBSS	Hanks' balanced salt solution
HBV	hepatitis B virus
HCV	hepatitis C virus
HEPES	<i>N</i> -2-hydroxyethylpiperazine- <i>N'</i> -2-ethanesulfonic acid
HER2	human epidermal growth factor receptor 2
HIV	human immunodeficiency virus
HLA	human histocompatibility leukocyte Ag
HPLC	high performance liquid chromatography
HPV	human papillomavirus
HRP	horseradish peroxidase
HSCT	hematopoietic stem cell transplantation
HSP	heat-shock protein
HSV	herpes simplex virus
i.d.	intradermal
ID <sub>50</sub>	50% infective dose or 50% inhibiting dose
IDO	indoleamine 2,3-dioxygenase
IFN	interferon
Ig	immunoglobulin
IC <sub>50</sub>	50% inhibition/inhibitory concentration
ICAM	intercellular adhesion molecule
ICOS	inducible costimulator
ICS	intracellular cytokine staining
Id	idiotype
IHC	immunohistochemistry
IL	interleukin
i.m.	intramuscular
IMDM	Iscove's modified Dulbecco's medium
i.p.	intraperitoneal
ITAM	immunoreceptor tyrosine-based activation motif
ITIM	immunoreceptor tyrosine-based inhibitory motif
IU	international unit
i.v.	intravenous
JAK or Jak	Janus kinase
$K_a$	association constant
$K_d$	dissociation constant
$K_D$	affinity constant
LAK cell	lymphokine-activated killer cell
LD <sub>50</sub>	50% lethal dose

LDH	lactate dehydrogenase
LN	lymph node
LPS	lipopolysaccharide
LU	lytic unit
2-ME	2-mercaptoethanol
mAb	monoclonal Ab
MACS	magnetic-activated cell sorting
MAPK	mitogen-activated protein kinase
MDSC	myeloid-derived suppressor cell
MEM	minimum essential medium
MFI/MCF	mean fluorescence intensity/mean channel fluorescence
MHC	major histocompatibility complex
MIANKA	Minimal Information about NK Cell Assays
MIP	macrophage-inflammatory protein
MLC	mixed lymphocyte culture
MLR	mixed leukocyte reaction
MIATA	Minimal Information about T Cell Assays
MRD	minimal residual disease
MRI	magnetic resonance imaging
mRNA	messenger RNA
MTT	3-(4,5-dimethylthiazol-2-yl)-2,5-dimethyltetrazolium bromide
m.w.	molecular weight
ND	not determined
NF- $\kappa$ B	nuclear factor $\kappa$ B
NIH	US National Institutes of Health
NK cell	natural killer cell
NO	nitric oxide
NS	not significant
OD	optical density
OS	overall survival
OVA	ovalbumin
<i>p</i>	probability
PBL	peripheral blood lymphocyte
PBMC	peripheral blood mononuclear cell
PBS	phosphate-buffered saline
PCR	polymerase chain reaction
PD-1	programmed death 1 receptor
PD-L1	programmed death ligand 1
PE	phycoerythrin
PerCP	peridinin chlorophyll protein
PFU	plaque-forming unit
PHA	phytohemagglutinin
PI3K	phosphatidylinositol 3-kinase
PMA	phorbol myristate acetate
poly I:C	polyinosinic:polycytidylic acid
RBC	red blood cell
RECIST	Response Evaluation Criteria In Solid Tumors
RNA	ribonucleic acid
RNase	ribonuclease
rpm	revolutions per minute

RPMI	Roswell Park Memorial Institute (culture medium)
rRNA	ribosomal RNA
RT-PCR	reverse transcriptase polymerase chain reaction
s.c.	subcutaneous
scFv	single chain variable fragment
SCID	severe combined immunodeficiency
SCT	stem cell transplantation
SDS-PAGE	sodium dodecylsulfate polyacrylamide gel electrophoresis
SEREX	serological analysis of recombinant cDNA expression libraries
SHIP	src homology 2-containing inositol 5' phosphatase
SNP	single nucleotide polymorphism
STAT	signal transducer and activator of transcription
TAA	tumor-associated antigen
TBS	Tris-buffered saline
TCR	T cell receptor for Ag
TDLN	tumor-draining lymph node
TERT	telomerase reverse transcriptase
TGF	transforming growth factor
TIL	tumor infiltrating lymphocyte
TLR	Toll-like receptor
TNF	tumor necrosis factor
TNFR	tumor necrosis factor receptor
TNM	tumor lymph node metastasis stage
TRAIL	TNF-related apoptosis-inducing ligand
tRNA	transfer RNA
TUNEL	TdT-mediated dUTP nick end labeling
UTR	untranslated region
UV	ultraviolet
v/v	volume to volume ratio (%)
v/w	volume to weight ratio (%)
WBC	white blood cell
WHO	World Health Organization ( <i>organization</i> )