

## Abbreviations

A	deoxyadenine
AID	activation-induced cytidine deaminase
AP	apyrimidinic
APOBEC	apolipoprotein B mRNA editing catalytic polypeptide
B cell	bone marrow derived B lymphocyte
bp	base pairs
C	deoxycytidine
C region	constant region
C terminus	carboxy terminus
cDNA	complementary DNA (complementary to mRNA)
CDR	complementarity-determining region
CSR	class switch recombination
D	diversity
DNA	deoxyribonucleic acid
DNA-PK	DNA-dependent protein kinase
dsDNA	double-strand DNA
EDTA	ethylenediaminetetraacetic acid
EGFP	enhanced green fluorescent protein
ELISA	enzyme-linked immunosorbent assay
ER	endoplasmic reticulum
FACS	fluorescence-activated cell sorter
FR	framework region
G	deoxyguanine
GFP	green fluorescent protein
H chain	heavy chain
HEK	human embryonic kidney epithelial cell line
HIGM2	hyper IgM syndrome 2
hr	hour
HRP	horse radish peroxidase
Ig	immunoglobulin
IP	immunoprecipitation
J	joining
kDa or kD	kilo Dalton
KO	knock out
L chain	light chain
LTR	long terminal repeats
min	minutes
MMR	mismatch repair
N terminus	amino terminus
NES	nuclear export signal
NLS	nuclear localization signal
ORF	open reading frame
PBS	phosphate buffered saline
PCR	polymerase chain reaction
PMSF	phenyl-methylsulfonyl fluoride
PNGase	peptide N-Glycosidase F
R	purine
RNA	ribonucleic acid
RNAi	RNA interference
S	switch

SDS	sodium dodecyl sulfate
sec	seconds
SHM	somatic hypermutation
shRNA	short hairpin RNA
siRNA	small interfering RNA
SNP	single nucleotide polymorphism
ssDNA	single-strand DNA
Supt	suppressor of Ty
T	deoxythymidine
TBS-T	tris-buffered saline Tween-20
Th cell	T helper cell
U	deoxyuracil
UNG	uracil-DNA glycosylase
V region	variable region
V <sub>NP</sub>	nonproductive V(D)J rearrangement
V <sub>P</sub>	productive V(D)J rearrangement
W	deoxyadenine or deoxythymidine
WEHI	Walter and Eliza Hall Institute
WT	wildtype
Y	pyrimidine