

LIST OF ABBREVIATIONS

A	Absorbance
Ab	Antibody
ANOVA	Analysis of variance
APC	Antigen presenting cell
ATCC	American type culture collection
ATPase	Adenosinetriphosphatase
BDs	Beta-defensins
bp	Base pair
BSH	Bile salt hydrolases
CAGR	Compounded annual growth rate
CCL	C-C motif chemokine ligand
CD	Cluster of differentiation
cDNA	Complementary DNA
CFS	Cell free supernatant
CFU	Colony forming unit
CHI3L	Chitinase-3-like protein
CLR	C-type lectin receptors
CpG motifs	Cytosine-phosphate-guanine motifs
Ct	Cycle threshold
CXCL	C-X-C motif ligand
DC	Dendritic cells
DDBJ	DNA Data Bank of Japan
DEPC	Diethyl pyro carbonate
DMEM	Dulbecco's modified eagle's medium
DNA	Deoxyribonucleic acid
DNTPs	2'-Deoxynucleotide-5'triphosphates
DPBS	Dulbecco's phosphate buffered saline
DW	Distilled water

ECM	Extracellular matrix
EDTA	Ethylene-diamine tetra acetic acid
EFSA	European food safety authority
EGF receptor	Epidermal growth factor receptor
ENA	European Nucleotide Archive
EPS	Exopolysaccharides
ERK	Extracellular signal-regulated kinases
ETEC	Enterotoxigenic <i>E. Coli</i>
FAO	Food and agriculture organization
FBS	Fetal bovine serum
FP	Forward primer
GALT	Gut-associated lymphoid tissues
GAPDH	Glyceraldehyde 3-phosphate dehydrogenase
GI	Gastro-intestinal
GIT	Gastrointestinal tract
GM-CSF	Granulocyte–macrophage colony stimulating factor
GRAS	Generally recognized as safe
IBD	Inflammatory bowel diseases
IBS	Irritable bowel syndrome
IDO	Indoleamine 2,3-dioxygenase
IEC	Intestinal epithelium cells
IFN	Interferon
Ig	Immunoglobulin
IL	Interleukin
IPTG	Isopropyl β -D-1-thiogalactopyranoside
IRAK-M	Interleukin-1 receptor-associated kinase- monocyte/macrophage
IRF	Interferon regulatory factor
LAB	Lactic acid bacteria
LGG	<i>Lactobacillus rhamnosus</i> GG
LPS	Lipopolysaccharide
LTA	Lipoteichoic acid

M	Molar
MAMPs	Microbe-associated molecular patterns
MAPK	Mitogen-activated protein kinase
M-CSF	Macrophage colony stimulating factor
MHC	Major histocompatibility complex
MIC	Minimum inhibitory concentration
mRNA	Messenger RNA
MRS	De Man Rogosa and Sharpe
MSCRAMMs	Microbial surface components recognizing adhesive matrix molecules
Mub	Mucus-binding protein
MΦ	Macrophage
NCCS	National centre for cell science
NF-κB	Nuclear factor κB
NLR	Nucleotide oligomerization domain-like receptors
NO	Nitric oxide
NOD	Nucleotide oligomerization domain-like receptors
ONPG	o-Nitrophenyl-β-D-galactopyranoside
PAGE	Polyacrylamide gel electrophoresis
PBMCs	Peripheral blood mononuclear cells
PBS	Phosphate buffered saline
PCR	Polymerase chain reaction
PGN	Peptidoglycan
PKA	Protein kinase a
PMNs	Polymorphonuclear neutrophils
PNPG	P-Nitrophenyl-α-D-galactopyranoside
PPAR	Peroxisome proliferator-activated receptor
PRRs	Pattern recognition receptors
qRT PCR	Quantitative real time polymerase chain reaction
RIG-I	Retinoic acid inducible gene I
RNA	Ribonucleic acid

ROI	Reactive oxygen intermediates
RP	Reverse primer
RPMI	Roswell Park Memorial Institute
rRNA	Ribosomal RNA
RT PCR	Reverse transcriptase polymerase chain reaction
SCFA	Short chain fatty acids
SIGIRR	Single Ig IL-1-related receptor
SOCS	Suppressor of cytokine signaling
SR-B1	Scavenger receptor class B type I
STAT	Signal transducer and activator of transcription
Taq	<i>Thermus aquaticus</i>
TBE	Tris-Borate EDTA
TGF	Transforming growth factor
Th	T-helper cells
TLRs	Toll-like receptors
TNBS	2,4,6-Trinitrobenzenesulfonic acid
TNF	Tumor necrosis factor
TOLLIP	Toll-interacting protein
Treg	T regulatory
Tris	Tri(hydroxymethyl) amino methane hydrochloride
UV	Ultraviolet
WHO	World health organization
WTA	Wall teichoic acid
X-gal	5-Bromo-4-chloro-3-indoly- β -D-galactopyranoside
α -Gal	α -Galactosidase
α -GOS	α -Galacto oligosaccharides

Note: Standard units (SI) of measurements and chemical formulae abbreviations are not included in the list above.