

Dedication

This thesis is dedicated to
my family, Changlu Liu, Shuqin Jia, Tai Liu,
and my dearest husband, Zhiping Wang
With my deepest love and gratitude.

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List of Abbreviation

bp	base pair
CFU	Colony forming units
CMI	Cell mediated immunity
ELISA	Enzyme-linked immunosorbant assay
EM	Electron microscopy
Hsp(s)	Heat shock protein(s)
Ig	Immunoglobulin
IFN	Interferon
i.p.	intraperitoneal
kDa	kilodalton
LPS	lipopolysaccharide
MHC	Major histocompatibility complex
PBS	Phosphate buffered saline
PCR	Polymerase chain reaction
SDS-PAGE	Sodium dodecyl sulfate polyacrylamide gel electrophoresis
SOD	Superoxide dismutase
TBS	Tris buffered saline
TSA	Trypticase soy agar
TSB	Trypticase soy broth
Tween-20	Polyoxyethylene 20 - sorbitan monolaurate
µm	micrometer
µl	microliter