TABLE OF CONTENTS

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

LIST OF TABLES

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

LIST OF FIGURES

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

ABBREVIATIONS

%	percent
°C	degree Celsius
β	beta
µg	microgram
µl	microliter
µM	micromolar
Å	angstrom
A	adenine
aa	amino acid
ag	attogram
ASC-US	atypical squamous cell of undetermined significance
ASR	age-standardized incidence rate
BGL	beta-globin
BHQ	black hole quencher
bp	base pair
C	cytosine
CIN	cervical intraepithelial neoplasia
CKI	cyclin-dependent kinase inhibitor
C_t	threshold cycle
dATP	deoxyadinosine triphosphate
dCTP	deoxycytosine triphosphate
dGTP	deoxyguanine triphosphate
DNA	deoxyribonucleic acid
dNTP	deoxynucleotide triphosphate
dsDNA	double-stranded deoxyribonucleic acid

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

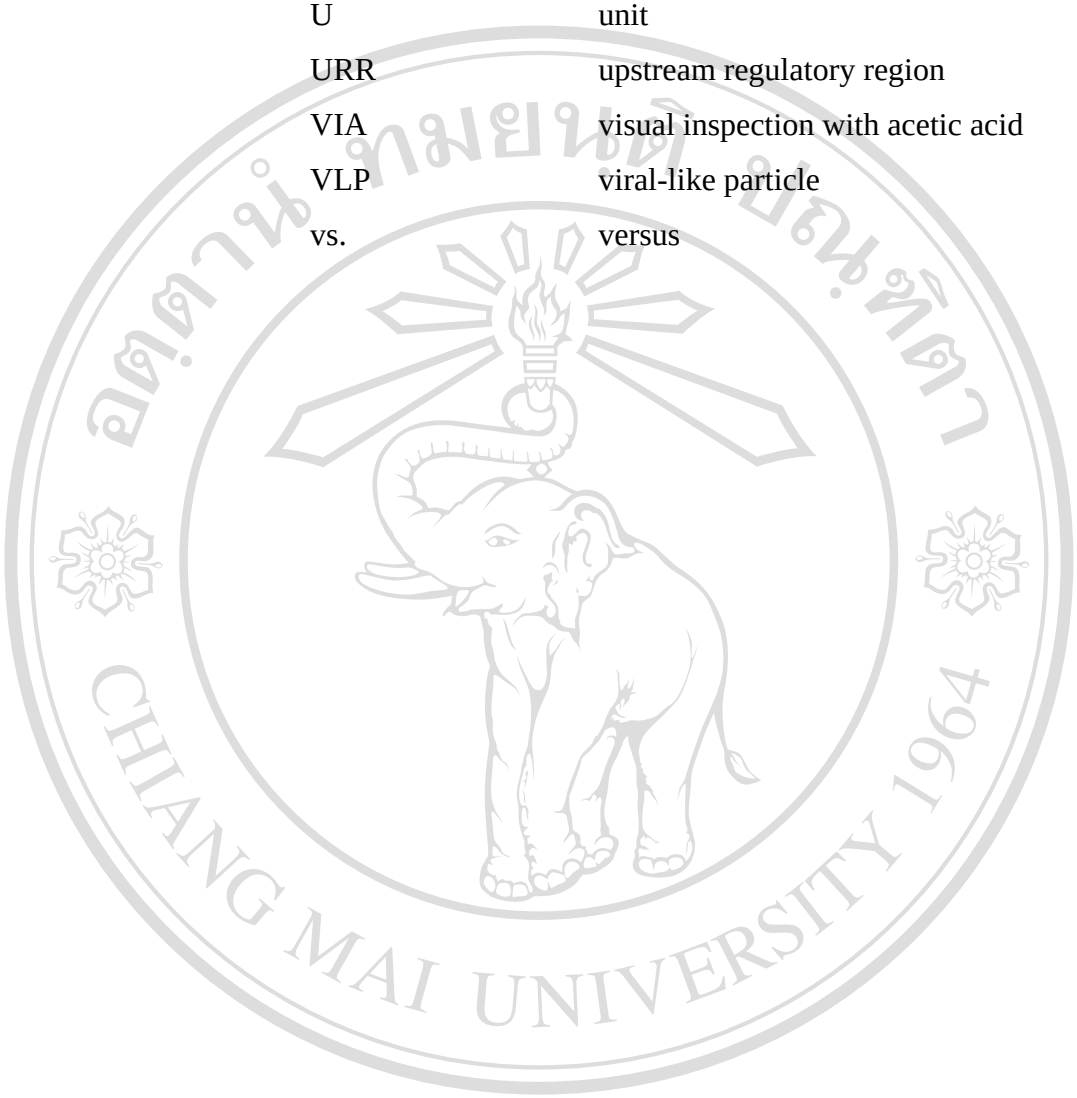
dTTP	deoxythymidine triphosphate
dUTP	deoxyuridine triphosphate
E. coli	*Escherichia coli*
EDTA	ethylenediaminetetraacetic acid
e.g.	exempli gratia (for example)
EGF	epidermal growth factor
E6-AP	E6-associated protein
EV	epidermodysplasia verruciformis
FAM	6-carboxyfluorescein
FDA	Food and Drug Administration
fg	femtogram
FRET	fluorescence resonance energy transfer
G	guanine
g	gram or gravity
g/mL	gram per milliliter
HC	Hybrid Capture
HLA	human leukocyte antigen
HPV	human papillomavirus
IARC	International Agency for Research on Cancer
kb	kilobase
kDa	kilodalton
l	liter
LB	Luria-Bertani
LBC	liquid-based cytology
LCR	long control region
LiPA	line probe assay
LSIL	low-grade squamous intraepithelial lesion
M	molarity

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Mae	*Methanococcus aeolicus*
mg	milligram
ml	milliliter
mM	millimolar
Mse	*Micrococcus species*
MW	molecular weight
ng	nanogram
nm	nanometer
nM	nanomolar
NT	non-typable
O.D.	optical density
ORF	open reading frame
ori	origin of replication
Pap smear	Papanicolaou smear
PBS	phosphate buffer saline
PCR	polymerase chain reaction
PDGF	platelet-derived growth factor
pg	pictogram
pRb	retinoblastoma protein
REA	restriction enzyme analysis
RNA	ribonucleic acid
rpm	revolutions per minute
Rsa	*Rhodopseudomonas sphaeroides*
SD	standard deviation
Sfc	*Streptococcus faecium*
SSC	squamous cell carcinoma
STIs	sexually transmitted infections
T	thymine
TBE	tris-borate EDTA
Taq	*Thermus aquaticus*

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

U	unit
URR	upstream regulatory region
VIA	visual inspection with acetic acid
VLP	viral-like particle
vs.	versus



ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved