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LIST OF ABBREVIATIONS

95% CI	95% confidence interval
aa	Amino acid
ALT	Alanine aminotransferase
Anti-HBc	Hepatitis B core antibodies
Anti-HBe	Hepatitis B e antibodies
Anti-HBs	Hepatitis B surface antibodies
AuAg	Australia antigen
BCP	Basal core promoter
bp	Base pair
CA	California
cccDNA	Covalently closed circular DNA
CD	Cluster of differentiation
СР	Core promoter
CTL	Cytotoxic T lymphocytes
dL	Deciliter
dN	Number of non-synonymous substitutions per non-synonymous site
DNA	Deoxyribonucleic acid
dNTP	Deoxynucleotide
dSCC	Number of synonymous substitutions per synonymous site
dsDNA	Double-stranded DNA
<i>Eco</i> RI	Escherichia coli RI
ELISA	Enzyme-linked immunosorbent assay
EPI	Expanded Program on Immunization
g	Gram
GD	Genetic distances
HAA	Hepatitis-associated antigen
HAART	Highly active antiretroviral therapy

HBcAg	Hepatitis B core antigen
HBeAg	Hepatitis B e antigen
HBsAg	Hepatitis B surface antigen
HBV	Hepatitis B virus
HBx	Hepatitis B X protein
HCC	Hepatocellular carcinoma
HCV	Hepatitis C virus
HIV	Human immunodeficiency virus
IFN	Interferon
IgM	Immunoglobulin M
IL	Interleukin
IQR	Interquartile range
IU/mL	International Units per Milliliter
kb	Kilobase
kDa	Kilo Dalton
kgs	Kilograms
LAM	Lamivudine
L-HBs	Large Hepatitis B surface
MEGA	Molecular evolutionary genetics analysis
M-HBs	Medium Hepatitis B surface
min	Minute
mLada	Milliliter MONSAGUE COLOURI
mm ³ Copyr	Cubic millimeter
MTCT	Mother-to-child transmission
Ν	Number
N/A	Not available
NAs	Nucleos(t)ide analogs
NAT	Nucleic acid amplification
NCBI	National Center for Biotechnology Information
NK	Natural killer
NKT	Natural killer T

nm	Nanometer
nt	Nucleotide
NTM	Non transmitting mother
OBI	Occult HBV infection
ORFs	Open reading frames
Р	Polymerase
PCR	Polymerase chain reaction
PD-1	Programmed death-1
pgRNA	Pregenomic RNA
PHPT	Programs for HIV Prevention and Treatment
PMN	Polymorphonuclear cell
pol	Polymerase gene
PreC/C	Precore/core
PreS/S	Presurface/surface
RC DNA	Relaxed circular partially double stranded DNA
RNA	Ribonucleic acid
RNase H	Ribonuclease H
RT	Reverse transcriptase
SapI	Shrimp alkaline phosphatase I
sec	Second
S-HBs	Small Hepatitis B surface
SVP	Subviral particles
Th Copyr	Thelper by Chiang Mai University
TM	Transmitting mother
TP	N-terminal protein
URR	Upper regulatory region
USA	United States of America
WMHBV	Woolly monkey hepatitis b virus
YMDD	Tyrosine-methionine-aspartate-aspartate
μL	Microliter

LIST OF SYLMBOLS

Alpha α β Beta Equal or greater than \geq Gamma γ Less than ามย < 2104.279 Percent 20 % HING MAI ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่ Copyright[©] by Chiang Mai University All rights reserved