

Cover Page



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ADRIAAN HUGO DE WILDE

Host factors in nidovirus replication

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Host factors in nidovirus replication

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“Wat er ook gebeurt, altijd blijven lachen...”

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LIST OF ABBREVIATIONS

-RNA	negative-stranded RNA
+RNA	positive-stranded RNA
aa	amino acid
ACE2	Angiotensin-converting enzyme 2
ActD	Actinomycin D
ARDS	Acute Respiratory Distress Syndrome
Arf	ADP-ribosylation factor
ATP	adenosine triphosphate
avg	average
BCoV	Bovine coronavirus
BHK	Baby hamster kidney
BFA	Brefeldin A
CDK	cyclin-dependent protein kinase
CM	convoluted membrane
COP	coatomer protein complex
CsA	cyclosporin A
CoV	coronavirus
CPE	cytopathic effect
CTP	cytidine triphosphate
Cy3	indocarbocyanine 3
Cyp	cyclophilin
DAA	direct-acting antiviral
DDX	DEAD-box protein
DENV	dengue virus
DMEM	Dulbecco's Modified Eagle Medium
DMSO	dimethyl sulfoxide
DMV	double-membrane vesicle
DNA	deoxyribonucleic acid
DPP4	dipeptidyl peptidase-4
ds	double-stranded
DTT	dithiothreitol
DUB	deubiquitinating enzyme
E protein	envelope protein
EAV	Equine arteritis virus
EDEM	ER degradation-enhancing alpha-mannosidase-like protein
eIF	eukaryotic translation initiation factor
EM	electron microscopy

EMEM	Eagle's Minimal Essential Medium
ER	endoplasmic reticulum
ERGIC	ER-Golgi intermediate compartment
ExoN	exonuclease N
FA	formaldehyde
FDA	Food and Drug Administration
g	genomic
GAPDH	glyceraldehyde 3-phosphate dehydrogenase
GBF1	guanine nucleotide exchange factor 1
GFP	green fluorescent protein
GMEM	Glasgow Minimum Essential Medium
HCoV	human coronavirus
HCV	hepatitis C virus
HDA	host-directed antiviral
HeLa	Henrietta Lacks
HEPES	4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid
HIV	human immunodeficiency virus
hnRNP	heterogeneous nuclear ribonucleoprotein
HPF	high-pressure freezing
HR	heptad repeat
HRI	heme-regulated inhibitor
Huh	human hepatoma
IBV	infectious bronchitis virus
IC ₅₀	half maximal inhibitory concentration
IF	immunofluorescence
IFN	interferon
IRF	IFN-regulatory factor
IgG	immunoglobulin G
IL	interleukin
ISG	interferon-stimulated gene
IVRA	<i>in vitro</i> RNA synthesis assay
kb	kilobase
kDa	kilo Dalton
Lys	lysine
M protein	membrane protein
MADP1	zinc finger CCHC-type and RNA-binding motif 1
MDA-5	melanoma differentiation-associated protein 5
MERS	Middle East Respiratory Syndrome
MERS-CoV	MERS-coronavirus

MHV	mouse hepatitis virus
MOI	multiplicity of infection
MP	main protease
mRNA	messenger RNA
MT	methyl transferase
N	nucleus
N protein	nucleocapsid protein
nsp	non-structural protein
ORF	open reading frame
PABP	poly(A)-binding protein
PBS	phosphate-buffered saline
PCBP	poly(C)-binding protein
PEG-IFN	pegylated IFN- α
PERK	PKR-like endoplasmic reticulum kinase
PFA	paraformaldehyde
p.i.	post infection
p.t.	post transfection
PKR	double-stranded RNA-activated protein kinase
PLP	papain-like protease
PNS	post-nuclear supernatant
pp	polyprotein
PPlase	peptidyl-prolyl isomerases
P-PMO	peptide-conjugated antisense phosphorodiamidate morpholino oligomer
PRRSV	Porcine Reproductive and Respiratory Syndrome Virus
PTB	polypyrimidine tract-binding protein
PV	poliovirus
RBD	receptor-binding domain
RC	replication complex
RdRp	RNA-dependent RNA polymerase
RF	replicative form
RFS	ribosomal frameshift
RI	replicative intermediate
RIG-I	retinoic acid-inducible gene 1
RLR	Rig-I-like receptor
RNA	ribonucleic acid
RNase	ribonuclease
RNAi	RNA interference
RTC	replication and transcription complex
RVN	reticulovesicular network

S protein	Spike protein
SARS	Severe Acute Respiratory Syndrome
SARS-CoV	SARS-coronavirus
SD	standard deviation
SDS-PAGE	sodium-dodecyl sulfate polyacrylamide gel electrophoresis
sg	subgenomic
shRNA	short-hairpin RNA
siRNA	small interfering RNA
ss	single-stranded
TBK1	TANK-binding kinase 1
TfR	transferrin receptor
TGEV	transmissible gastroenteritis virus
TRAF3	TNF receptor-associated factor 3
TRS	transcription regulatory sequences
UTR	untranslated region
WNV	West Nile virus
wt	wild-type

