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Approval Sheet

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بسم الله الرحمن الرحيم

سبحانك لا علم لنا إلا ما علمتنا

إنك أنت العليم الحكيم

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LIST OF ABBREVIATIONS

Ads	Adenoviruses
AHC	Acute Haemorrhagic Conjunctivitis
AIDS	Acquired Immuno Deficiency Syndrome
ARD	Acute Respiratory Disease
BAdV	Bovine Adenovirus
bp	Base Pair
BRSV	Bovine Respiratory Syncytial Virus
BSA	Bovine Serum Albumin
CAdV	Canine Adenovirus
$CCID_{50}$	Cell Culture Infective Dose 50
CE	Counter Electrophoresis
CF	Complement Fixation
CNS	Central Nervous System
CPE	Cyto-Pathic Effect
DNA	Deoxyribo-Nucleic Acid
EAdV	Equine Adenovirus
EIA	Enzyme Immuno-Assay
ELISA	Enzyme Linked Immuno Sorbent Assay
EKC	Epidemic Kerato-Conjunctivitis
EM	Electron Microscopy
EV70	Enterovirus type 70
FAdV	Fowl Adenovirus
FBS	Foetal Bovine Serum
FCS	Foetal Calf Serum
FITC	Fluorescein IsoThioCyanate
FrAdV	Frog Adenovirus
HA	Haemagglutination
HAdV	Human Adenovirus
HEK	Human Embryonic Kidney
HEV/TAdV	Haemorrhagic enteritis virus/Turkey Adenovirus

LIST OF ABBREVIATIONS (cont.)

HI	Haem-agglutination Inhibition
ICTV	International Committee on Taxonomy of Viruses
IEM	Immuno Electron Microscopy
IFA	Immuno-Fluorescent Assay
IIF	Indirect Immuno-Fluorescent
ILD	Influenza Like Disease
ITR	Inverted Terminal Repetitions
kDa	Kilo Dalton
LA	Latex Agglutination
LRI	Lower Respiratory Illness
Mab	Monoclonal antibodies
MAdV	Murine Adenovirus
MEM	Minimal Essential Medium
MoH	Ministry of Health
NCBI	National Centrer for Biotech Information
nm	Nanometer
OAdV	Ovine Adenovirus
OD	Optical Density
PAdV	Porcine adenovirus
PBS	Phosphate buffered saline
PCF	Pharyngeo-Conjunctival Fever
PCR	Polymerase Chain Reaction
PD	Proportionate Distance
PoAdV	Possum Adenovirus
RBCs	Red Blood Cells
RE	Restriction Enzyme
RIA	Radio Immuno Assay
RNA	Ribonucleic Acid
SnAdV	Snake Adenovirus
TMB	3,3',5,5'-tetra methyl benzidine

LIST OF ABBREVIATIONS (cont.)

TNF	Tumour Necrosis Factor
TP	Terminal Protein
TR-IFA	Time resolved Immunofluorescent Assay
URI	Upper Respiratory Illness
USA	United States ofAmerica
WBCs	White Blood Cells
WHO	World Health Organization
µg	Micro gram
µl	Micro litter

INTRODUCTION

1. INTRODUCTION

Adenovirus is one of a group of small double-stranded DNA viruses of animal cells capable of causing various disorders in human and animals, and of transforming cells into tumour cells.

Adenoviruses (Ads) were discovered in the early 1950s during the period of active searching for agents of the common cold and other respiratory infections of children. The first Adenoviruses were found during investigations of the cause of spontaneous degeneration of cell cultures of adenoidal tissue obtained by routine adenoidectomies in children. This was discovered in 1953 by Wallace Rowe and colleagues ***(Rowe et al 1953).***

Others were found at the same time in HeLa cell cultures inoculated with respiratory specimens from patients with acute respiratory disease (ARD) or primary atypical pneumonia. Of particular significance during this period was the prominent role that adenoviruses played in non-influenzal acute respiratory disease (ARD) in new military recruits ***(Hillman and Werner 1954).***

By the end of the 1950s, 24 antigenically distinct adenoviruses had been described, including some found during a search for the cause of poliomyelitis and others associated with eye disease ***(Bell et al 1960).***

In 1954 Cabbasso and colleagues demonstrated that the etiological agent of infectious canine hepatitis was an adenovirus. Subsequently, many adenoviruses, each appearing to be highly host specific, were isolated from humans and many other mammals and birds, usually from the upper respiratory tract, but some-times from feces. Most of these viruses produce