

Virus Name: Seletar		Abbreviation: SELV
Status Possible Arbovirus	Select Agent No	SALS Level 2
SALS Basis Results of SALS surveys and information from the Catalogue.		
Other Information		
Antigenic Group Kemerovo		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation SM-214	Accession Number	Original Date Submitted 8/16/1984
Family Reoviridae	Genus Orbivirus	
Information From Albert Rudnick	Address Hooper foundation, University of California, San Francisco, CA 94143	
Information Footnote Reviewed by editor		

Section II - Original Source

Isolated By (name) Albert Rudnick	Isolated at Institute Hooper Foundation	
Host Genus Boophilus microplus, pool of 57 ticks	Species	Host Age/Stage Not recorded
Sex Not Answered		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod	
Time Held Alive before Inoculation		
Collection Method By hand from several domestic cattle	Collection Date 1/16/1961	
Place Collected (Minimum of City, State, Country) Seletar District of Singapore		
Latitude 1° 2' N	Longitude 103° 50' E	
Macrohabitat Domestic cattle	Microhabitat Attached to skin	Method of Storage until Inoculated Dry ice cabinet
Footnotes		

Section III - Method of Isolation

Inoculation Date
12/27/1961

Animal (Details will be in Section 6)
nb mice

Route Inoculated
ic and ip

Reisolation
Yes

Other Reasons

Homologous Antibody Formation by Source Animal

Test(s) Used

Footnotes

Section IV - Virus Properties

Physicochemical

Pieces (number of genome segments)	Infectivity	Sedimentation Coefficients(s) (S)
Percentage wt, of Virion Protein	Lipid	Carbohydrate
Virion Polypeptides: Number	Details	
Non-virion Polypeptides: Number	Details	
Virion Density	Sedimentation Coefficients(s) (S)	
Nucleocapsid Density	Sedimentation Coefficients(s) (S)	

Stability of Infectivity (effects)

pH (infective range)

Lipid Solvent (ether - % used to test)	After Treatment Titer	Control Titer
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate) 1:100	After Treatment Titer 1.8 dex	Control Titer 4.2 dex
Other (formalin, radiation)		

Virion Morphology

Shape	Dimensions	
Mean nm	Range nm	
Measurement Method	Surface Projections/Envelope	Nucleocapsid Dimensions, Symmetry

Morphogenesis

Site of Constituent Formation in Cell Site of Virion Assembly Site of Virion Accumulation

Inclusion Bodies Other

Hemagglutination

Hemagglutination Antigen Source Erythrocytes (species used)
No **SMB ext. by sucrose-acetone** **Goose**

pH Range pH Optimum

Temperature Range Temperature Optimum

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

Section V - Antigenic Relationship and Lack of Relationship to Other Viruses

Results of CF tests performed at YARU showed that Seletar (SM-214) is very closely related to Wad Medani strains AR-492 and IG-673 (YARU Annual Report, 1965. p. 24).

Cross-neutralization tests in suckling mice and employing mouse hyperimmune sera prepared with five inoculations gave the following results:

Virus	Serum			
	AR-492	IG-673	SM-214	P5-127
Wad Medani AR-492	1.5 *	0.9	0.5	0.4
Wad Medani IC-673	0.4	1.6	0.4	0.5
Seletar SM-214	0.7	0.7	1.3	1.5
Seletar P5-127	0.5	0.5	1.9	2.3

* LNI in dex

These viruses lose titer during performance of NT tests resulting in low LNI's. These results, however, are reproducible. The differences in the LNI's above are significant based on standard error of the LD50 calculated at 0.2 dex.

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Newborn mice

Cell system (a)	Virus passage history (b)	Evidence of Infection							Growth Without CPE +/- (g)		
		CPE			PLAQUES						
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)				

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Boophilus microplus ticks	1/1 pool		Seletar district, Singapore
Boophilus microplus ticks	1/many		Kepong, Selangor, Malaysia
Cattle		1/4 NT	Peninsular Malaysia
Carabao		3/4 NT	
Horses		0/2 NT	
Pigs		2/10 NT	
Wild boar		0/1 NT	
Goats		0/7 NT	
Rats		0/7 NT	

Section XI - Human Disease

In Nature	Residual	Death
Subclinical	Overt Disease	
Clinical Manifestations		
Number of Cases	Category (i.e. febrile illness, etc.)	

Section XII - Geographic Distribution

Known (Virus detected) Singapore and Peninsular Malaysia
Suspected (Antibody only detected)

Section XIII - References

<ol style="list-style-type: none">1. Rudnick, A., et al. 1st. Southeast Asian Regional Seminar on Trop. Med. (Abstracts) Bangkok. 1967. pp. 40-41.2. Casals, J. Personal communication. 1965.3. Casals, J. Personal communication. 1969.4. Rudnick, A., et al. Unpublished. 1970.5. Rudnick, A., et al. Unpublished. 1972.6. Begum, F., Wisseman, Jr., C.L. and Casals, J. 1970. Amer. J. Epid. 92(3):197-202.

Remarks

The two strains of this virus were previously recorded as strains of Wad Medani on the registration card for that virus in the Catalogue.
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