Virus Name: Pongola	Abbreviation: PGAV

Status
Arbovirus

Select Agent
No

SALS Level
2

SALS Basis
Results of SALS surveys and information from the Catalogue.

Other Information

Antigenic Group
Bwamba

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
SAAr 1

Accession Number

Original Date Submitted
10/8/1984

Family
Bunyaviridae

Genus
Bunyavirus

Information From
B.M. McIntosh

Address
National Institute for Virology, P/Bag X4, Sandringham, 2131, South Africa

Information Footnote
Revised

Section II - Original Source

Isolated By (name)
R.H. Kokernot, et al. (1)

Isolated at Institute
S. Afr. Inst. Med. Res., Johannesburg

Host Genus
Aedes circumluteolus

Species

Host Age/Stage
Adult

Sex
Female

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation
1 day

Collection Method
By hand off vegetation

Collection Date
4/20/1955

Place Collected (Minimum of City, State, Country)
Lake Simbu, Pongola River, Natal, South Africa

Latitude
27° S

Longitude
3° E

Macrohabitat
Tropical, coastal lowland; savannah woodland

Microhabitat

Method of Storage until Inoculated
Held alive

Footnotes

Section III - Method of Isolation

Inoculation Date
4/21/1955

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
No

Other Reasons
Multiple isolations from same mosquito at same place in days immediately following

Homologous Antibody Formation by Source Animal

Test(s) Used
CF, NT

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)	After Treatment Titer	Control Titer

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

Hemaggiutination
No

Antigen Source

Erythrocytes (species used)

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

	PGA Virus			PGA Antibody (2 conv. sera, 1 HIAF)	
	NT(1)	CF17		NT(1)	CF(17)
Antisera	Ho/Ht	Ho/Ht	Virus	Ho/Ht	Ho/Ht
Bwamba-conv.	2.2/2.4		Bwamba	3.1/0	
Bwamba-conv.	4.8/4.7		Bwamba	2.6/0	
Bwamba HIAF		512/128	Bwamba		512/32

NT results expressed in dex LNI obtained in mice inoculated ic.

In cross CF tests with 20 African bunyaviruses, PGA reacted only with Bwamba as indicated above [17] .

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							
		CPE			PLAQUES			Growth Without CPE	
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	+/- (g)	
Vero (CL)	MB10				3	1 mm	8.3* (3)		
LLC-MK2 (CL)	MB10, 6				3	1 mm	8.7 (3,5)		
BHK-21 (CL)		3-4	4+	5.5*	6	1-2 mm	7.6 (4,5)		
PS-C1 (CL)	MB6				6	1 mm	7.6 (5)		
Vero (CL)					6	1-2 mm	7.9 (5)		

* Expressed in dex

Section VII - Natural Host Range (Additional text can be added below table)

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Man		167/652 NT	Natal, S. Africa (6)
Man		199/870 NT	Mozambique (7)
Man		14/120 NT	Caprivi, Nanibia (8)
Man		29/323 NT	Okavango, Botswana (8)
Man		53/362 NT	Angola (9)
Cattle		11/124 NT	South Africa (10)
Sheep		11/44 NT	

Goat		12/70 NT	
Donkey		21/30 NT	
Aedes circumluteolus	37		South Africa(1, 2, 11)
Mansonia uniformis and Ma africana	3		South Africa (2, 11)
Aedes dalzieli	3		Senegal (12)
Aedes vittatus	1		
Anopheles coustani	2		Kenya (13)
Mansonia africana	2		Uganda (14)
Ma africana, Aedes fowleri, Ae tarsalis	pos.		Centr. Afr. Rep.(15)
Ma africana	2		Mozambique (17)
Ma uniformis	1		Ethiopia (16)
Aedes tarsalis	1		Ivory Coast (18)
Anopheles coustani	1		
An funestus	1		
Human (acute serum)	1		Mukono District, Uganda (19)

Section VIII - Susceptibility to Experimental Infection (include viremia)

Experimental host and age	Passage history and strain	Inoculation Route-Dose	Evidence of infection	AST (days)	Titer log10/ml
Mice (nb)	SAAr 1	ic	Death	3	7.4
Mice (nb)		ip			
Mice (nb)		sc			
Mice (wn)		ic	Death	5.9	7.1
Mice (wn)		ip			
vervet monkey		ic	Antibody		
guinea pig		ic	Antibody		
wild rodents; 6 species			No viremia		
wild birds; 4 species			No viremia		

Section IX - Experimental Arthropod Infection and Transmission

Arthropod species & virus source(a)	Method of Infection log10/ml (b)		Incubation period (c)		Transmision by bite (d)		Assay of arthropod, log10/ml (e)		
	Feeding	Injected	Days	°C	Host	Ratio	Whole	Organ	System
Aedes circumluteolus	6.0		13-68	26	mice	Groups of mosq. transmitted to groups of mice in 3 of 11attempts. Mosq. Infection rate not determined (2,11).			

Section X - Histopathology

Character of lesions (specify host)

Inclusion Bodies — Intranuclear

Organs/Tissues Affected

Category of tropism

Section XI - Human Disease

In Nature — Residual — Death
Significant, Reported

Subclinical — Overt Disease

Clinical Manifestations
fever, headache, joint pains

Number of Cases
1

Category (i.e. febrile illness, etc.)
Febrile illness

Section XII - Geographic Distribution

Known (Virus detected)
South Africa (1,11), Mozambique (17), Senegal (12), Kenya (13), Uganda (14), Central African Republic (15), Ethiopia (16), Ivory Coast (18).

Suspected (Antibody only detected)
Namibia (8), Botswana (8), Angola (9)

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Remarks