Virus Name: Picola		Abbreviation: PIAV
Status **Possible Arbovirus**	Select Agent **No**	SALS Level **3**

SALS Basis
Isufficient experience with virus; i.e., experience factor from SALS surveys was less than 500 in laboratory facilities with low biocontainment.

Other Information

Antigenic Group
Ungrouped

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
PK886

Accession Number

Original Date Submitted
9/8/1984

Family
Not listed

Genus
Not listed

Information From
I.D. Marshall and G.M. Woodroofe

Address
Dept of Microbiology, JCSMR, Australian National University, Box 334, Canberra, A.C.T. 2601

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
I.D. Marshall and G.M. Woodroofe

Isolated at Institute
Canberra

Host Genus
Culex annulirostris

Species

Host Age/Stage
Adult

Sex
Female

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod
Engorged

Time Held Alive before Inoculation
18 hours

Collection Method
Mechanical aspirator

Collection Date
2/10/1974

Place Collected (Minimum of City, State, Country)
Picola, Victoria, Australia

Latitude
36° 0' S

Longitude
145° 8' E

Macrohabitat
Yard of private residence in village 9 mi. E. of Murray River, near Barmah Forest

Microhabitat
Walls of dog kennels occupied by Labrador bitch and 5 puppies

Method of Storage until Inoculated
Liquid N2 and Revco at -70dC

Footnotes

Section III - Method of Isolation

Inoculation Date
7/3/1974

Animal (Details will be in Section 6)
nb mice

Route Inoculated
ic-sc

Reisolation
Not tried

Other Reasons
Antigenically distinct from other viruses in this laboratory

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) **1:200**	After Treatment Titer **2.8 dex**	Control Titer **3.3 dex**

Other (formalin, radiation)

Virion Morphology

Shape **Reoviridae-like (1)**	Dimensions **59-64 nm**	
Mean nm	Range nm	
Measurement Method	Surface Projections/Envelope **No envelope**	Nucleocapsid Dimensions, Symmetry

Morphogenesis

Site of Constituent Formation in Cell	Site of Virion Assembly	Site of Virion Accumulation
Inclusion Bodies	Other	

Hemagglutination

Hemaggiutination	Antigen Source	Erythrocytes (species used)
No	**SMB ext. by sucrose-acetone**	**Gander**
pH Range **5.75-7.2**	pH Optimum	
Temperature Range **37dC**	Temperature Optimum	

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

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

Results of IFA, CF and EIA tests indicate that Picola and Wongorr viruses form the Wongorr antigenic group and are weakly related to Lipovnik virus [1] . Immune ascitic fluid and/or newborn mouse brain antigen failed to react with 23 Australian and New Guinean arboviruses (JCSMR and QIMR)

33 arbovirus group ascitic fluids (tested by GMW at YARU)

202 individual arbovirus CF antigens (tested by GMW at YARU)

6 mouse and other viruses (tested by GMW at YARU)

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)	Mosquito pool and SMB 2				8	No plaques			

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
Culex annulirostris	2/480 * engorged 0/19 * depleted		Murray Valley, Victoria, Australia

* Pools of 10

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)	SMB 3	ic 0.02	Death	7.6	3.5
Mice (nb)	SMB 2	ip 0.03	Antibodies		<2.3
Mice (nb)		sc			
Mice (wn)		ic 0.02	Antibodies		<2.3
Mice (wn)		ip 0.03	Antibodies		<2.3

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 aegypti		c.1.3/	0	28			<0.7		ic nb mice. Range of log10 LD/50 in 3 individually titrated mosquitoes at each time period.
		Mosquito	1				1.0-2.3		
			7				2.5-2.7 **		
			14				2.9->4.0		

** 1/3 mosquitoes negative

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
Subclinical	Overt Disease	

Clinical Manifestations

Number of Cases — Category (i.e. febrile illness, etc.)

Section XII - Geographic Distribution

Known (Virus detected)
Australia

Suspected (Antibody only detected)

Section XIII - References

1. Zeller, H. et al. 1989. III. Arch. Virol. Submitted.

Remarks