Virus Name: Joinjakaka	Abbreviation: JOIV

Status
Possible Arbovirus

Select Agent
No

SALS Level
2

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

Other Information

Antigenic Group
Ungrouped

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
MK 7937

Accession Number

Original Date Submitted
10/29/1984

Family
Rhabdoviridae

Genus
Not listed

Information From
Ian D. Marshall

Address
Dept. of Microbiology, JCSMR, Aust. Nat. Univ., Canberra, Australia

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
Pool of mixed Culicines

Species

Host Age/Stage
Adult

Sex
Female

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation

Collection Method
Aspirated from man

Collection Date
5/26/1966

Place Collected (Minimum of City, State, Country)
Joinjakaka, Sepik District, New Guinea

Latitude
3° 37' S

Longitude
142° 55' E

Macrohabitat
Dense secondary tropical rain forest, southern foothills of Prince Alexander Range

Microhabitat
Steep sided gully near stream.

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

Footnotes

Section III - Method of Isolation

Inoculation Date
7/29/1969

Animal (Details will be in Section 6)
nb mice

Route Inoculated
ic and sc

Reisolation
Yes

Other Reasons
Antigenically distinct from other rhabdoviruses

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 **<2.3 dex**	Control Titer **3.7 dex**

Other (formalin, radiation)

Virion Morphology

Shape **Bullet shaped**	Dimensions **220-250 nm x 60-75 nm (1)**	
Mean nm	Range nm	
Measurement Method **Electron microscopy (1)**	Surface Projections/Envelope **Envelope present**	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 **SMB ext. by sucrose-acetone**	Erythrocytes (species used) **Gander**
pH Range	pH Optimum	
Temperature Range	Temperature Optimum	

Remarks

Serologic Methods Recommended
CF

Footnotes

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

No cross reaction with any arbovirus in Canberra laboratories. Characterization carried out by Yale Arbovirus Research Unit.

No relationship by CF to 197 arboviruses, including the following rhabdoviruses: Chandipura, Hart Park, Mokola, Kern Canyon, Klamath, Lagos bat, Mount Elgon bat, Piry, rabies, VSVI, VSNJ, bovine ephemeral fever virus.
Test against bovine ephemeral fever virus at Canberra, all others 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)					7	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
Pool of 50 mixed Culicines	1		Sepik District, New Guinea
Man (< 6 years old)		0/187* NT	
Cattle		Some NT pos.	Queensland, Australia (2)

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 2	ic 0.02	Paralysis and death	4-9	8.0
Mice (nb)		ip 0.02	Antibodies		<4.0
Mice (nb)		sc			
Mice (wn)		ic 0.03	Antibodies		<2.0
Mice (wn)		ip 0.03	Antibodies		<2.0

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	Mosquitoes infected by intrathoracic inoculation (virus titer = 2.5 dex/ mosq.). Day 7 and 14 virus titers = 3.6 and 3.1 dex/mosq., respectively; no transmission obtained. In another series, mosquitoes were inoc. with 1.3 dex/mosq. At day 7, virus titer = 3.8 dex/mosq. There was no transmission on days 2 and 7.								

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)
Sepik District,New Guinea

Suspected (Antibody only detected)
Australia

Section XIII - References

1. Lipman, M., YARU. Personal communication.
2. Queensland Inst. Med. Res., Brisbane, Queensland, Australia. Unpublished data. 1974.

Remarks