Virus Name: Almpiwar		Abbreviation: ALMV
Status **Probable 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
MRM4059

Accession Number

Original Date Submitted
11/19/1984

Family
Rhabdoviridae

Genus
Not listed

Information From
R.L. Doherty

Address
Queensland Institute of Medical Research

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
Miss P. Graf

Isolated at Institute
Brisbane

Host Genus
Ablepharus boutonii virgatus (skink)

Species

Host Age/Stage

Sex
Not Answered

Isolated From	Isolation Details
Whole Blood	

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation

Collection Method

Collection Date
3/21/1966

Place Collected (Minimum of City, State, Country)
Mitchell River Aboriginal Community, Australia

Latitude
15° 30' S

Longitude
141° 40' E

Macrohabitat
Low-lying plain bordering Gulf of Carpentaris

Microhabitat

Method of Storage until Inoculated
Transported on solid CO2, then in Revco at -60dC

Footnotes

Section III - Method of Isolation

Inoculation Date
5/11/1966

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
No

Other Reasons
. Two other isolations (one reisolated) from same species collected during same period.

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) **50%**	After Treatment Titer **<2.0 dex**	Control Titer **3.3 dex**
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate) **1/1000**	After Treatment Titer **<2.0 dex**	Control Titer **3.5 dex**

Other (formalin, radiation)

Virion Morphology

Shape **Rhabdovirus morphology**	Dimensions **About 200 nm in length**	
Mean nm	Range nm	
Measurement Method **Thin-section electron microscopy (5)**	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	Antigen Source	Erythrocytes (species used)
No	**SMB, blood ext. by sucrose-acetone**	**Goose**
pH Range **6.0-7.6**	pH Optimum	
Temperature Range	Temperature Optimum	

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

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

Tests at Queensland Institute of Medical Research:

No antigenic relationship by complement-fixation and neutralization tests to any arbovirus or suspected arbovirus isolated or available at this laboratory: Group A (Sindbis , Ross River , Getah , Bebaru); group B (Murray Valley encephalitis , Kunjin , Kokobera , Edge Hill, Stratford , Alfuy , JBE, SLE, dengue types 1-4); Koongol group (Koongol, Wongal); Mapputta group (Mapputta, Trubanaman, MK7532); Simbu group (Akabane , Aino , (Samford)); Quaranfil group (Abal); Palyam group (D'Aguilar); Corriparta group (Corriparta); Eubenangee group (Eubenangee); Warrego group (Warrego , Mitchell River); others (Kowanyama, Belmont, Upolu, ephemeral fever, Charleville , Wallal , Wongorr , Ngaingan).

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Blood (LV)

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)	SMB 5		No CPE			No plaques		
PS (CL)			No CPE			No plaques		
BHK-21 (CL)			No CPE			No plaques		
VSW (CL)		7	CPE	5.5 * (3)				

* 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. tsted Test used	Country and region
Ablepharus boutonii virgatus	3/75	74/752	Mitchell River, north Queensland, Australia (1,2)
Various vertebrates		10/666	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 5	ic 0.015	Death	5-7	7.7
Mice (nb)		ip 0.03	No overt signs of infection		<3.5
Mice (nb)		sc			
Mice (wn)		ic 0.03	No overt signs of infection		<3.5
Mice (wn)		ip 0.1	Antibody developed		

Section IX - Experimental Arthropod Infection and Transmission

Culex quinquefasciatus (SMB 5) , Intrathoracically inoculated with 0.0006 ml = 2.9 log10LD50/mosquito. Whole mosquitoes titrated in sucklinng mice 1-12 days after inoculation. Mosquitoes contained 4.9-6.8 log10LD50 per mosquito 4-12 days after inoculation (4).
MRM4059 was maintained through 5 serial passages at weekly intervals (salivary gland ground and inoculated intrathoracically). Whole mosquitoes contained 5.5 log10LD50 per mosquito 1 week after inoculation with 5th passage (4).

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. Graf, P.A., et al. Personal communication.
2. Doherty, R.L., et al. 1970. Trans. R. Soc. Trop. Med. Hyg. 64:748-753.
3.* Zeigel, R.F. and Clark, H.F. 1969. J. Nat. Cancer Inst. 43:1097-1102.
4. Carley, J.G., et al. 1973. J. Med. Ent. 10:244-249.
5. Cropp, C.B. and Monath, T.P. Personal communication. 1980.

* Reference quoted is to the cell line and not to the observations on Almpiwar virus.

Remarks