

Virus Name: Adelaide River		Abbreviation: ARV
Status Possible Arbovirus	Select Agent No	SALS Level
SALS Basis		
Other Information		
Antigenic Group Bovine Ephemeral Fever		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation DPP61	Accession Number	Original Date Submitted 4/27/1984
Family Rhabdoviridae	Genus Not listed	
Information From Dr. G.P. Gard	Address Dept. of Primary Production, Berrimah Lab, Box 4160, Darwin, Australia	
Information Footnote		

Section II - Original Source

Isolated By (name) Dr. G.P. Gard	Isolated at Institute Dept. Primary Production, Darwin	
Host Genus Bovine	Species	Host Age/Stage
Sex Male		
<u>Isolated From</u>	<u>Isolation Details</u>	
Whole Blood		
Signs and Symptoms of Illness None	Arthropod	
Time Held Alive before Inoculation		
Collection Method Blood in heparin collected by venipuncture	Collection Date 3/17/1981	
Place Collected (Minimum of City, State, Country) Tortilla Flat, Northern Territory, Australia		
Latitude 13° 13' S	Longitude 13° 8' E	
Macrohabitat	Microhabitat	Method of Storage until Inoculated 4dC
Footnotes		

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)

Not tried

pH Range

pH Optimum

Temperature Range

Temperature Optimum

Remarks

Serologic Methods Recommended

NT, IF, CF

Footnotes

Cross-neutralization tests with the Australian bovine ephemeral fever (BEF) group viruses

Virus	Antiserum			
	Standard BEF ^a	Kimberley	Berrimah	Adelaide River
Standard BEF ^a	812	<2	<2	<2
Kimberley ^b	<2	1622	<2	<2
Berrimah ^c	20	<2	1622	<2
Adelaide River ^d	<2	<2	<2	4096

Neutralization titres represent reciprocal of the highest dilution neutralizing 50% of 100 TCD50.

^a Strain BB7721, Doherty et al. ()^b Strain OR250, Liehne et al. ()^c Strain DPP63, Gard et al. ()^d Unpublished G.P. Gard

Cross-Immunofluorescence of BEF Group Viruses

Antigen	Antiserum			
	BEF	KIM	AR	BRM
BEF	4+	4+	3+	4+
Kimberley	3+	4+	1+	4+
Adelaide River	2+	2+	4+	--
Berrimah	4+	4+	1+	4+

Degree of specific fluorescence with 1:8 antiserum; --=neg.

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Blood (LV)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
BHK-21 cell cultures

Cell system (a)	Virus passage history (b)	Evidence of Infection						
		CPE			PLAQUES			Growth Without CPE +/- (g)
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	
BHK-21(CL)	BHK 2	3	80%	5.0 *				
Vero(CL)	BHK 7	3	80%	4.0	6	0.5-1.5 mm	5.0 *	

* 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
Cattle (blood)	1/>5,000		Northern Territory, Australia
Cattle		355/1,130 NT	Queensland and Northern Territory, Australia. Papua, New Guinea
Buffalo		7/50 NT	Northern Territory, Australia
Cattle		29/168 NT	New Caledonia
Culex annulirostris	0/799 pools		NorthWestern Australia
Culicoides brevitaris	0/>1,000 pools		SE Queensland, Australia

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)		ic	None		
Mice (nb)		ip	None		
Mice (nb)		sc			
Mice (wn)		ic			
Mice (wn)		ip			

Section X - Histopathology

Character of lesions (specify host)

Inclusion BodiesIntranuclear

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)

Papua, New Guinea; New Caledonia

Section XIII - References

1. Doherty, R.L., et al. 1973. Aust. J. Sci. 31:365-366.
2. Liehne, P.F.S., et al. 1981. Aust. J. Exp. Biol. Med. Sci. 59:347-356.
3. Gard, G.P., et al. 1983. Aust. Vet. J. 60:89.
4. Shorthose, J.E., et al. 1986. Aust. Vet. J. 63:236.

Remarks