

Virus Name: Coastal Plains		Abbreviation: CPV
Status Possible Arbovirus	Select Agent No	SALS Level
SALS Basis		
Other Information		
Antigenic Group Tibrogargan		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation DPP 53	Accession Number	Original Date Submitted 8/5/1987
Family	Genus Rhabdoviridae	
Information From G. P. Gard, D.H. Cybinski	Address AI Tose Virology Lab, Darwin, CSIRO, Division of Trop. Animal Science PB3, Indooroopilly 4068 Australia	
Information Footnote		

Section II - Original Source

Isolated By (name) Dr. G. P. Gard	Isolated at Institute AI Rose Virology Lab	
Host Genus Bos taurus	Species	Host Age/Stage 18 months
Sex Male		
<u>Isolated From</u> Whole Blood	<u>Isolation Details</u>	
Signs and Symptoms of Illness None	Arthropod	
Time Held Alive before Inoculation		
Collection Method Venipuncture	Collection Date 2/3/1981	
Place Collected (Minimum of City, State, Country) Coastal Plains Res. Stn., N.I., Australia		
Latitude 12° 39' S	Longitude 132° 20' W	
Macrohabitat Dry Monsoonal subcoastal plains land system	Microhabitat Improved tropical grass pasture	Method of Storage until Inoculated 6 hours at 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)
No **BHK-21 cells** **Goose**

pH Range pH Optimum
6.0-7.3

Temperature Range Temperature Optimum

Remarks

Serologic Methods Recommended
NT

Footnotes

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

DPP 53 was negative by immunofluorescence against BLU, Simbu, Palyam, bovine ephemeral fever, and epizootic hemorrhagic disease group antisera.

A relationship with Tibrogagan virus was demonstrated by serum neutralization and cross-indirect immunofluorescence.

Virus	IMMUNOFLOURESCENCE NEUTRALIZATION			
	Rabbit Antiserum		Rabbit Antiserum	
	Tibrogagan	DPP 53	Tibrogagan	DPP 53
Tibrogagan *	64 **	16	154 ***	16
Coastal Plains (DPP 53)	8	32	16	4096

* Virus diluted at 1/10.

** Reciprocal of highest serum dilution showing fluorescence.

*** Reciprocal of highest serum dilution with neutralizing 100 TCID₅₀ of virus in 50% of the wells.

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Bos taurus (LV)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
BHK-21 roller tubes

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 11							
	Vero 12	56 hrs.	100%	7.0 dex				
	BHK 2							
Vero (CL)	BHK 11				7	1.5 mm	7.7 dex	
	Vero 9							
Vero (CL)	BHK 5	3	100%	7.0 dex				
Aedes albopictus,	BHK 11							
C6/36 clone (CL)	Vero 12	3	No CPE	6.0 dex				+
	BHK 2							

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Cattle (Bos sp)	1/2,000		Northern Territory, Australia (1)
Buffalo (Bubalis sp)		2/17	Northern Territory, Australia
Cattle (Bos sp)		161/648	Northern Territory, Australia
Cattle (Bos sp)		38/101	Papua, New Guinea
Deer (Cervus sp)		0/240	Northern and Eastern Australia
Humans		0/86	Northern and Eastern Australia
Pigs (Sus sp)		0/47	Northern and Eastern Australia
Wallabies (Wallabia sp)		0/53	Northern Territory, 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 log ₁₀ /ml
mice (nb)	BHK 10 Vero 3	ic	Paralysis, death	10	
"" (nb)	BHK 10 Vero 3	ip	No effect		
"" (nb)	Not tested	sc			
"" (wn)	Not tested	ic			
"" (wn)	Not tested	ip			

Section IX - Experimental Arthropod Infection and Transmission

Arthropod species & virus source(a)	Method of Infection log ₁₀ /ml (b)		Incubation period (c)		Transmission by bite (d)		Assay of arthropod, log ₁₀ /ml (e)		
	Feeding	Injected	Days	°C	Host	Ratio	Whole	Organ	System
Aedes aegypti, DPP 53, BHK 8		7.25	14	20d			3.5		BHK-21 roller tubes
Aedes aegypti, DPP 53, BHK 8		7.25	14	27d			3.0		BHK-21 roller tubes

Section X - Histopathology

Character of lesions (specify host)		
<u>Inclusion Bodies</u>	<u>Intranuclear</u>	
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) Northern Territory, Australia
Suspected (Antibody only detected) Queensland and New South Wales, Australia

Section XIII - References

1. Cybinski, D. H. and Gard, G. P. 1986. Aust. J. Biol. Sci., 39:225-32.
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Remarks

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