

Virus Name: Csiro Village		Abbreviation: CVGV
Status Probable Arbovirus	Select Agent No	SALS Level 2
SALS Basis Results of SALS surveys and information from the Catalogue.		
Other Information		
Antigenic Group Palyam		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation CSIRO 11 (1)	Accession Number	Original Date Submitted 4/30/1985
Family Orbivirus	Genus	
Information From D.H. Cybinski	Address CSIRO Long Pocket Lab, PB3, Indooroopilly, Queensland, Australia	
Information Footnote Reviewed by editor		

Section II - Original Source

Isolated By (name) H.A. Standfast	Isolated at Institute Indooroopilly, Australia	
Host Genus Culicoides brevitarsis	Species	Host Age/Stage
Sex Female		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod Depleted	
Time Held Alive before Inoculation 4 hours		
Collection Method truck trap	Collection Date 11/20/1974	
Place Collected (Minimum of City, State, Country) beatrice Hill, North Territory		
Latitude 12° 39' S	Longitude 131° 20' E	
Macrohabitat subcoastal plain	Microhabitat	Method of Storage until Inoculated liquid nitrogen vapour
Footnotes		

Section III - Method of Isolation

Inoculation Date

12/4/1974

Animal (Details will be in Section 6)

nb mice

Route Inoculated

intracerebral

Reisolation

Yes

Other Reasons

sixty-four further isolations in mice or BHK-21 cells

Homologous Antibody Formation by Source Animal

Test(s) Used

Footnotes

Section IV - Virus Properties

Physicochemical

RNA, Double Strand

Pieces (number of genome segments)

10

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)

10%, RT

After Treatment Titer

3.0 dex

Control Titer

3.5 dex

Lipid Solvent (chloroform)

10%, RT

After Treatment Titer

2.5 dex

Control Titer

3.5 dex

Lipid Solvent (deoxycholate)

After Treatment Titer

Control Titer

Other (formalin, radiation)

Virion Morphology

Shape

Dimensions

Mean
nm

Range
nm

Measurement Method

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

Hemagglutination Antigen Source Erythrocytes (species used)

Not tried

pH Range pH Optimum

Temperature Range Temperature Optimum

Remarks

Serologic Methods Recommended
NT, CF, IFA

Footnotes

Section V - Antigenic Relationship and Lack of Relationship to Other Viruses**Results of complement fixation tests with Palyam serogroup viruses [2]**

ANTIGEN	ANTISERUM										
	PALYAM	CSIRO VILLAGE	MARRA-KAI	BUNYIP CREEK	VELLORE	B2032	KASBA	ABADINA	K58	D'AGUILAR	NYABIRA
Palyam	128/32 *	64/32	128/64	64/32	256/128	256/32	256/64	256/32	64/16	256/64	128/64
Csiro Village	16/16	128/8	32/4	64/32	128/64	128/8	128/4	64/8	8/4	256/16	128/8
Marrakai	128/64	128/64	256/64	128/64	256/128	128/64	256/64	256/128	64/32	512/64	128/>=128
Bunyip Creek	128/32	64/64	128/64	128/128	128/>128	128/64	256/64	128/64	32/32	256/64	128/>=128
Vellore	128/64	128/64	128/64	64/64	512/>128	256/64	256/64	256/64	64/32	256/64	128/>=128
Dak Ar B2032	128/64	128/64	128/128	64/128	256/>=128	256/128	256/128	256/128	64/64	256/>=128	128/>=128
Kasba	128/64	128/64	128/64	128/64	256/>=128	256/64	512/128	256/64	64/32	512/64	128/>=128
Abadina	128/32	64/32	128/64	64/64	256/>=128	128/64	256/64	256/64	64/64	256/64	128/>=128
Dak Ar K58	32/16	128/16	128/16	64/32	256/64	128/16	256/16	256/16	64/8	256/16	128/32
D'Aguilar	128/64	64/64	128/64	128/64	128/>=128	128/64	256/64	256/64	32/32	512/>128	128/>=64

* Reciprocal of highest antiserum dilution/reciprocal of highest antigen dilution.

Results of plaque reduction neutralization tests with Palyam serogroup viruses [2]

VIRUS	ANTISERUM										
	PALYAM	CSIRO VILLAGE	MARRA-KAI	BUNYIP CREEK	VELLORE	B2032	KASBA	ABADINA	K58	D'AGUILAR	NYABIRA
Palyam	320 **	320	0	0	0	0	0	0	0	0	0
Csiro Village	40	5120	0	0	0	0	0	0	0	0	0
Marrakai	0	0	>=20480	0	0	0	10	20	0	0	0
Bunyip Creek	0	0	0	80	640	0	0	0	0	0	0
Vellore	0	0	0	20	10240	0	0	0	0	0	0
Dak Ar B2032	0	0	0	0	10	10240	0	0	0	0	0
Kasba	0	0	40	0	0	0	>20480	2560	320	0	0
Abadina	0	0	0	0	0	0	1280	5120	1280	0	0
Dak Ar K58	0	0	0	0	0	0	2560	2560	1280	0	0
D'Aguilar	0	0	0	0	20	0	0	0	0	320	1280

** Reciprocal of highest antiserum dilution producing >=90% plaque inhibition in Vero cell cultures; 0 = <10

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
bovine blood (LV)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
newborn mice or 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 4	2	4+	5.0 ^a				
Vero (CL)		2	4+	4.5				

^a 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
Culicoides brevitarsis	38/1,200		Northern Territory, Southeast Queensland, Australia
Cattle, sentinel (blood)	27/3,000		Southeast Queensland, Australia (1)
Cattle		549/916 NT	Northern and eastern Australia
Buffalo		5/16 NT	Northern Territory, Australia
Sheep		1/72 NT	Queensland, Australia
Deer		329/432 NT	Southeast Queensland, Australia

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)
Suspected (Antibody only detected)

Section XIII - References

1. Cybinski, D.H. and St. George, T.D. 1982. Aust. J. Biol. Sci. 35: 343-351.
2. Knudson, D.L. et al. 1984. Intervirology 22:41-49.

Remarks

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