

Virus Name: Bunyip Creek		Abbreviation: BCV
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 58 (1)	Accession Number	Original Date Submitted 4/30/1985
Family Reoviridae	Genus Orbivirus	
Information From T.D. St. George	Address CSIRO Long Pocket LAB, PB3, Indooroopilly, Queensland, Australia	
Information Footnote Reviewed by editor		

Section II - Original Source

Isolated By (name) T.D. St. George	Isolated at Institute Indooroopilly	
Host Genus Bos taurus	Species	Host Age/Stage
Sex Not Answered		
<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 3/5/1976	
Place Collected (Minimum of City, State, Country) Grafton, N.S.W.		
Latitude 29° 41' S	Longitude 152° 56' E	
Macrohabitat	Microhabitat	Method of Storage until Inoculated 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)

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	MARRAKAI	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
MARRADAI	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)
BHK-21 cell cultures and newborn mice

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+	5.3 ^a				
Vero (CL)		2	4+	4.5				

^a Expressed in dex

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Culicoides brevitarsis	12/1,200		Northern Territory; Southeast Queensland, Australia
Culicoides schultzei	1/1,200		Beatrice Hill, Northern Terr., Australia (1)
Cattle, sentinel (blood)	73/3,000		East Queensland, Australia (1)
Cattle		3,616/6,490 N-	Northern area of eastern Australia
Buffalo		14/16 N-	Northern Territory, Australia
Sheep		64/188 N-	Queensland, Australia
Deer		343/432 N-	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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