

Virus Name: Anopheles B		Abbreviation: ANBV
Status Possible Arbovirus	Select Agent No	SALS Level 2
SALS Basis Results of SALS surveys and information from the Catalogue.		
Other Information		
Antigenic Group Anopheles B		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation	Accession Number	Original Date Submitted 2/25/1985
Family Bunyaviridae	Genus Bunyavirus	
Information From M. Roca-Garcia	Address	
Information Footnote Reviewed by editor		

Section II - Original Source

Isolated By (name) Manuel Roca-Garcia (1)	Isolated at Institute Villavicencio, Meta, Colombia	
Host Genus Anopheles (Ker) boliviensis	Species	Host Age/Stage Adult
Sex Female		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod	
Time Held Alive before Inoculation		
Collection Method Caught by hand	Collection Date 11/29/1940	
Place Collected (Minimum of City, State, Country) Villavicencio, Meta, Colombia		
Latitude 5° N	Longitude 74° W	
Macrohabitat Rural area, hilly terrain, rain forest vegetation	Microhabitat Out-of-doors, about 1200 feet above sea level; low bushes, under	Method of Storage until Inoculated
Footnotes		

Section III - Method of Isolation

Inoculation Date
11/29/1940

Animal (Details will be in Section 6)
wb mice

Route Inoculated Intracerebral	Reisolation Not tried
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Other Reasons
Hitherto undescribed virus

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 Member of Bunyavirus genus (9)	
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)	After Treatment Titer	Control Titer
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate)	After Treatment Titer 2.5 dex intact (2)	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
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Inclusion Bodies	Other
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Hemagglutination

Hemagglutination	Antigen Source	Erythrocytes (species used)
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pH Range	pH Optimum
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Temperature Range	Temperature Optimum
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Remarks

Serologic Methods Recommended

NT, CF

Footnotes

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

Boracea virus was found to be related to Anopheles B by CF test. SIRACA considers both Anopheles B and Boracea viruses to be distinct virus types in the small Anopheles B serogroup [10].

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Weanling 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)	
Mouse embryo(PC) (Maitland-type)	MB 50		Virus multiplication	2.0 *				
BHK-21 (CL)						Plaques (4)		
Vero (CL)	MB 170				9	3 mm	6.6 * (7)	
LLC-MK2 (CL)					4	2 mm	6.2 (7)	

* 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
Anopheles (Kerteszia) boliviensis	1		Colombia

Repeated isolations of an Anopheles B group virus have been made from Anopheles (Ker) neivai 284852 collected with human bait in the Buenaventura area, Pacific lowlands, Colombia (8).

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)	MB 20	ic 0.02	Death	5	5.0
Mice (nb)		ip			
Mice (nb)		sc			
Mice (wn)	10% MB	ic 0.03	Death	6	5.0
Mice (wn)		ip 0.50	Immunity (1)		
guinea pigs		sc 4.0	No viremia or symptoms (1)		

Section IX - Experimental Arthropod Infection and Transmission

Arthropod species & virus source(a)	Method of Infection log10/ml (b)		Incubation period (c)		Transmission by bite (d)		Assay of arthropod, log10/ml (e)		
	Feeding	Injected	Days	°C	Host	Ratio	Whole	Organ	System
Aedes aegypti	Virus recovered from salivary glands 14 days following parenteral inoculation (5)								

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) Colombia, South America
Suspected (Antibody only detected)

Section XIII - References

<ol style="list-style-type: none">1. Roca-Garcia, M.J. 1944. Inf. Dis. 75:160-169.2. Theiler, M. 1957. Proc. Soc. Exp. Biol. and Med. 96:380-382.3. Casals, J. 1961. WHO Bull. 24:723-734.4. Bergold, G.H. Personal communication.5. Whitman, L. Personal communication.6. Taylor, R.M. 1952. J. Immunol. 68:473.7. Stim, T.B. 1969. J. Gen. Virol. 5:329-338.8. Sanmartin, C. 1971. Personal communication.9. Klimas, R.A., et al. 1981. Am. J. Trop. Med. Hyg. 30:876-887.10. Calisher, C.H., et al. 1985. Intervirology. To be submitted.

Remarks
