

Virus Name: Resistencia		Abbreviation: RTAV
Status Possible Arbovirus	Select Agent No	SALS Level
SALS Basis		
Other Information		
Antigenic Group Resistencia		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation AG80-504	Accession Number	Original Date Submitted 7/6/1984
Family Bunyaviridae	Genus Bunyavirus-like	
Information From C.Mitchell, T.Monath, C.Calisher, M.Sabattini	Address CDC, Ft. Collins, CO and Inst. Virologia, Cordoba, Argentina	
Information Footnote		

Section II - Original Source

Isolated By (name) C.Mitchell, T.Monath, M.Sabattini	Isolated at Institute CDC, Ft. Collins, CO	
Host Genus Culex (Melanoconion) delpontei, pool of 65	Species	Host Age/Stage Adult
Sex Female		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod Engorged, Depleted, Gravid	
Time Held Alive before Inoculation Nil		
Collection Method CDC light trap and CO2	Collection Date 4/9/1980	
Place Collected (Minimum of City, State, Country) Near Rio Negro Bridge, NE Resistencia, Argentina		
Latitude 27° 27' S	Longitude 58° 52' W	
Macrohabitat Subtropical riverine forest	Microhabitat Tree-lined margin of Rio Negro (choked with aquatic vegetation)	Method of Storage until Inoculated Dry ice and -80dC freezer
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

Infected SMB ext. by sucrose-acetone

Goose

pH Range

pH Optimum

5.8-7.2

Temperature Range

Temperature Optimum

Remarks

Serologic Methods Recommended

CF, N

Footnotes

Six strains were shown to be identical by cross-CF tests: AG80-226, AG80- 517, AG80-785, AG80-1545, AG80-381, and AG80-504. Strain AG80-504 (sucrose- acetone antigen) tested by CF with a battery of HIAF containing antibodies to more than 300 arboviruses and other viruses; no reactions were detected. No inhibition of hemagglutination was detected in HI tests employing HIAF for AG80-504 and antigens of viruses belonging to serogroups A, B, C, Bunyamwera, Turlock, California, and Phlebotomus fever [1].

NT tests were performed with five of these six isolates (AG80-785 = AG80- 1545). The results (shown below) demonstrate that, although interrelated, AG80-504, AG80-226 and AG80-381 are distinct from each other, that AG80-785 is identical with AG80-504 and that AG80-517 is a subtype of AG80-504 [1].

Strain	PRNT titer of antibody to:				
	AG80-226	AG80-381	AG80-504	AG80-785	AG80-517
AG80-226	2560 *	80	-	-	-
AG80-381	320	320	-	10	10
AG80-504	40	-	640	640	160
AG80-785	-	-	640	1280	640
AG80-517	20	-	320	1280	1280

* Reciprocal of highest dilution producing >90% plaque reduction;

- = <10

Virus Source (all VERTEBRATE isolates)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Vero 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)		
Vero (CL)	Vero 1	6	1-2+						
Vero (CL)	Vero 1 SM 2				5	1 mm	7.3**		
Duck embryo (PC)						No plaques	<2.0		

** Expressed in dex

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Culex (Mel) delpontei	4/8,081		Chaco Province, Argentina
Cx (Mel) spp.	0/24,235		
Cx (Cux) spp.	0/13,537		
Aedeomyia squamipennis	0/2,181		
Aedes scapularis	0/3,074		
Anopheles albitarsis	0/565		
Anopheles spp.	0/17,195		
Coquillettidia spp.	0/1,858		
Mansonia spp.	0/31,492		
Psorophora spp.	0/1,228		
Uranotaenia spp.	0/1,204		
Other arthropod spp.	0/985		
Akodon sp.		7/38 NT	
Calomys sp.		0/3 NT	
Oryzomys sp.		0/23 NT	
Horses		0/137 NT	
Horses		9/49 NT	Santiago del Estero Prov., Argentina
Horses		0/89 NT	Cordoba and Corrientes Prov., Argentina

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)	Vero 1 SM 2	ic	Death	6	>7.0
Mice (nb)		ip			
Mice (nb)		sc			
Mice (wn)		ic			
Mice (wn)		ip			
Mice (6-8 wk)	Vero 2 SM 1	ip	None		

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

Section X - Histopathology

Character of lesions (specify host)

Inclusion Bodies

Intranuclear

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) Argentina
Suspected (Antibody only detected) Santiago del Estero Prov., Argentina

Section XIII - References

1. Calisher, C.H., et al. 1985. Am. J. Trop. Med. Hyg. 34:956-965.
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Remarks

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