

Virus Name: Antequera

Abbreviation: ANTV

Status: Possible Arbovirus

Select Agent:

SALS Level:

SALS Basis:

HEPA Filtration:

Antigenic Group: Resistencia

Taxonomic status: *Bunyavirus-like*

Other Information: None.

Section I - Full Virus Name and Prototype Number

Full Virus Name:

Prototype Number:

Antequera

AG80-226

Information from: C.Mitchell, T.Monath, C.Calisher, M.Sabattini.**Date:**

7/6/1984

Address: CDC,Ft. Collins, CO and Instituto de Virologia, Cordoba, Argentina

*

Section II - Original Source

Isolated by: C.J. Mitchell and T.P. Monath **at:** CDC, Ft. Collins, CO

Genus and species: *Culex* (*Melanoconion*) *delpontei*, pool of 86**Sentinel** X

Age/Stage: Adult

Sex: F

Isolated From	Isolation detail
---------------	------------------

Signs and symptoms of illness:

Arthropod engorged X depleted X gravid

Time held alive before inoculation: Nil

Collection date: 4/8/1980 **Method:** Chicken-baited lard can

Place collected: Antequera Nature Park, Chaco Province, Argentina

Latitude: 27° 25' " S **Longitude:** 58° 50' " W

Macrohabitat: Swamp in subtropical riverine forest

Microhabitat: Dense vegetation adjacent to swamp

Method of storage until inoculated: Dry ice and -80dC freezer

Footnotes:

Section III - Method of Isolation and Validity

Inoculation Date: 7/1/1980

Animal: Embryonated egg: Tissue Culture: X

(Details in Section VI - Biologic Char.)

Route inoculated: Reisolation: Not tried

Other reasons:

Homologous antibody formation by source animal (See Section II):

Test used: HI CF NT

Other:

Footnotes:

Section IV - Virus Properties

Physicochemical:

RNA: DNA: Single Strand: Double Strand:
Pieces: Infectivity: Sedimentation coefficient(s): /strong>
Percentage wt. of virion protein, lipid carbohydrate
Virion polypeptides:
Number: Details:
Non-virion polypeptides:
Number: Details:
Virion density: Sedimentation coefficient:
Nucleocapsid density Sedimentation coefficient:

Stability of infectivity (effects) pH Labile at pH 3.0

Lipid solvent:

(ether)	After treatment titer	Control titer
(chloroform)	After treatment titer	Control titer

Detergent:
(deoxycholate) After treatment titer Control titer
Other (formalin, radiation):

Virion morphology:

Shape	Dimensions
Mean (nm) range (nm)	how measured

Surface projections, envelope
Nucleocapsid dimensions, symmetry

Morphogenesis:

Site of constituent formation in cell
Site of virion assembly
Inclusion bodies
Other

Hemagglutination:

Hemagglutination No Antigen source SMB ext. by sucrose-acetone
Erythrocytes Goose pH range 5.8-7.2 pH optimum
Temperature optimum range
Remarks
Serologic methods recommended CF, N
Footnotes:

Section V - Antigenic Relationship And Lack of Relationship To Other Viruses

Six strains were shown to be identical by cross-CF tests: AG80-226, AG80-517, AG80-785, AG80-1545, AG80-381, and AG80-504. AG80-226 (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 AG80-226 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, AG80-226, AG80-504 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

Section VI - Biologic Characteristics

Virus source (all VERTEBRATE isolates):

Lab Methods of Virus Recovery (ALL ISOLATIONS): Vero cell cultures

Susceptibility of Cell Culture Systems:

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 2 SM 1	5	3-4+		5	<1 mm	8.0 **	
Duck embryo (PC)			No CPE			No plaques	<2.0	

** Expressed in dex

Section VII - Natural Host Range

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Culex (Mel) delpontei	1/8,081		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		

Section VIII - Susceptibility To Experimental Infection (Record Viremia)

Experimental host and age	Passage history and strain	Inoculation Route- Dose	Evidence of infection	AST (days)	Titer log10/ml		
Mice (nb)	Vero 2 SM 1	ic	Death	6	>7.0		
Mice (nb)		ip					
Mice (nb)		sc					
Mice (wn)		ic					
Mice (wn)		ip					
Mice (6-8wk)		ip	None				

Section IX - Experimental Arthropod Infection And Transmission

Section X - Histopathology

Character of lesions:

Inclusion bodies:

Cytoplasmic:(M) (LV) Intranuclear: (M) (LV)

Organs-tissues affected:

Category of tropism:

Section XI - Human Disease

Human disease: In nature: (S) (R)

Death: (S) (R)

Residua: (S) (R)

Laboratory infections: Subclinical: (S) (R)

Overt Disease: (S) (R)

Clinical manifestations:

Category: No. of cases:

Section XII - Geographic Distribution

Known (virus):

Argentina

Section XIII - References

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

Section XIV - Remarks
