

Virus Name: Gan Gan		Abbreviation: GGV
Status Possible Arbovirus	Select Agent No	SALS Level 2
SALS Basis Placed at this biosafety level based on close antigenic or genetic relationship to other viruses in a group of 3 or more viruses, all of which are classified at this level.		
Other Information		
Antigenic Group Mapputta		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation NB6057	Accession Number	Original Date Submitted 9/8/1984
Family Bunyaviridae	Genus Bunyavirus-like	
Information From I.D. Marshall and G.M. Woodroffe	Address Dept of Microbiology, JCSMR, Australian National University, Box 334, Canberra City, A.C.T.	
Information Footnote Reviewed by editor		

Section II - Original Source

Isolated By (name) I.D. Marshall and G.M. Woodroffe	Isolated at Institute Canberra	
Host Genus Aedes vigilax (1,2)	Species	Host Age/Stage Adult
Sex Female		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod Depleted	
Time Held Alive before Inoculation Nil		
Collection Method Light trap with CO2	Collection Date 4/22/1970	
Place Collected (Minimum of City, State, Country) Nelson Bay, Gan Gan Army Camp, N.S.W., Australia		
Latitude 32° 43' S	Longitude 150° 5' E	
Macrohabitat Consolidated sand dunes, swamps; Port Stephens Peninsula	Microhabitat Angophera, Banksia, Acacia spp. close to paperbark (Melaleuca) swamp	Method of Storage until Inoculated Liquid nitrogen and Revco at -70dC
Footnotes		

Section III - Method of Isolation

Inoculation Date
5/22/1970

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
Not tried

Other Reasons

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	
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	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)
No **SMB ext. by sucrose-acetone** **Gander**

pH Range pH Optimum
5.8-7.4

Temperature Range Temperature Optimum
37dC

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

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

CF tests at JCSMR, QIMR, and YARU indicated relationship only with members of the Mapputta group (Bunyaviridae), with closest relationship to Maprik virus. Gan Gan is distinguished from Maprik by cross neutralization.

Immune Ascitic Fluid or Antigen	Gan Gan Antigen or Virus			Gan Gan Immune Ascitic Fluid		
	CF		NT	CF		NT
	Ht/Ho	Ratio	Ht/Ho	Ht/Ho	Ratio	Ht/Ho
Mapputta	<4/512	-	0.7/>4.9 ^a	4/128	1/32	0.4/3.4
Trubanaman	8/1024	1/128	0.7/>5.0	8/128	1/16	0.7/3.4
Maprik	256/1024	1/4	0.7/5.1	32/128	1/4	2.7/3.4

^a LNI in dex

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Newborn mice; plaques on Vero, PS cell monolayers

Cell system (a)	Virus passage history (b)	Evidence of Infection							Growth Without CPE +/- (g)
		CPE			PLAQUES				
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)		
Vero (CL)	SMB 1				7	0.5mm	7.0 (b)		
PS (CL)					7	0.5mm	6.7		

(b) 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
Aedes vigilax	4/7,911		Nelson Bay, New South Wales, Australia
Culex annulirostris	3/22,776		Charleville, Queensland, AS (3)
Aedes normanensis	7/4,312		
Mixed pool of Aedes eidsvoldensis and Aedes pseudonormanensis	1		

Antibodies to Gan Gan virus detected in human sera collected along south coast of New South Wales, Australia (4).

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) Australia (1-3)
Suspected (Antibody only detected)

Section XIII - References

1. Gard, G., et al. 1973. Am. J. Trop. Med. Hyg. 22:551-660. 2. Marshall, I.D., et al. 1980. Aust. J. Exp. Biol. Med. Sci. 58:91-102. 3. Doherty, R.L. 1977. Aust. J. Exp. Biol. Med. Sci. 55:103-130. 4. Vale, T.G., et al. 1986. Aust. J. Exp. Biol. Med. Sci. 64:307-309.

Remarks

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