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|--|---------------------------|---------------------------|
| Virus Name: Bertioga | | Abbreviation: BERV |
| Status Possible Arbovirus | Select Agent No | SALS Level 2 |
| SALS Basis Results of SALS surveys and information from the Catalogue. | | |
| Other Information | | |
| Antigenic Group Guama | | |

SECTION I - Full Virus Name and Prototype Number

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|---|---|---|
| Prototype Strain Number / Designation SPAN 1098 | Accession Number | Original Date Submitted 3/13/1985 |
| Family Bunyaviridae | Genus Bunyavirus | |
| Information From Dr. Oscar de Souza Lopes | Address Instituto Adolfo Lutz, C.P. 7027, Sao Paulo, Brazil | |
| Information Footnote Reviewed by editor | | |

Section II - Original Source

| | | |
|---|--|--|
| Isolated By (name) Instituto A. Lutz | Isolated at Institute Bertioga, Brazil | |
| Host Genus White mice, sentinel | Species | Host Age/Stage Newborn |
| Sex Not Answered | | |
| <u>Isolated From</u> | <u>Isolation Details</u> | |
| Signs and Symptoms of Illness Paralysis and death | Arthropod | |
| Time Held Alive before Inoculation | | |
| Collection Method Sentinel mice exposed during 72 hrs. in the forest | Collection Date 3/24/1962 | |
| Place Collected (Minimum of City, State, Country) Bertioga beach, Sao Paulo, Brazil | | |
| Latitude 24° 3' S | Longitude 46° 1' W | |
| Macrohabitat Primitive forest at sea level | Microhabitat At ground level, in the shade | Method of Storage until Inoculated Electrical deep-freezer at -70dC |
| Footnotes | | |

Morphogenesis

| Site of Constituent Formation in Cell | Site of Virion Assembly | Site of Virion Accumulation |
|---------------------------------------|-------------------------|-----------------------------|
| Inclusion Bodies | Other | |

Hemagglutination

| | | |
|--------------------------------|---|---|
| Hemagglutination Yes | Antigen Source SMB; liver; serum ext. by sucrose-acetone; acetone | Erythrocytes (species used) Goose |
| pH Range 6.0-7.0 | pH Optimum 6.0 | |
| Temperature Range | Temperature Optimum | |

Remarks

Good CF antigens from SMB, livers. A workable HA can be made using acetone ext. of SM serum.

Serologic Methods Recommended

CF, NT

Footnotes

Good CF antigens from SMB, livers. A workable HA can be made using acetone ext. of SM serum.

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

Immune serum (titer = 64) failed to react in CF tests with the following viruses:

EE, WE, Mayaro, UNA, Aura; YF (Asibi), Ilheus, SLE, Bussuquara; Marituba, Oriboca; Kairi, Cache Valley, Wyeomia, Guaroa; Guama, Catu, Moju; Mirim, Guajara, Bushbush; Oropouche, Lukuni, Anopheles A, Anopheles B, Cotia (SPAN 232 and SPAN 880), Tacaiuma.

Found to be a member of Guama group by HI and NT.

SIRACA has antigenically classified Bertioga virus as a distinct virus type and placed it in the Bertioga complex, one of five complexes comprising the Guama serogroup [3].

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
CNS (LV)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
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) | |
| Vero (CL) | P-4 | | | | 2 | 1 mm | 5.7* (1) | |
| LLC-MK2 | | | | | 8 | 1 mm | 5.6 (1) | |

* 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 |
|---|------------------------------|---|------------------------------------|
| Sentinel mice | 2 | | Bertioga, Sao Paulo, Brazil (2) |

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

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| Known (Virus detected) Brazil |
| Suspected (Antibody only detected) |

Section XIII - References

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| 1. Stim, T.B. 1969. J. Gen. Virol. 5:329-338. 2. Lopes, O. de S., et al. 1975. Am. J. Trop. Med. Hyg. 24:131-134. 3. Calisher, C.H., et al. 1985. To be submitted. |
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Remarks

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