



# Credible Resources for Vector-Borne Diseases



# INTRODUCTION

Vector-borne diseases account for a significant fraction of the global infectious disease burden, contributing to more than 1 billion cases and 1 million deaths annually.<sup>1</sup> Of the known vectors, hematophagous arthropods, such as mosquitoes, ticks, and sand flies, are responsible for the transmission of some of the most devastating diseases throughout the world. Presently, vaccines are not available for many vector-borne diseases and treatment may be limited. Further, accurate diagnosis of these diseases can be complicated due to a variety of factors, including analogous clinical presentation, serological cross-reactivity, or the possibility of co-infection. Thus, accurate methods for early detection are imperative in managing microbial dissemination and minimizing the impact of these diseases on public health.

To aid in these efforts, ATCC offers a wide range of microorganisms and nucleic acids that support research on prevalent vector-borne diseases, including:

- Anaplasmosis
- Babesiosis
- Chikungunya
- Dengue
- Ehrlichiosis
- Leishmaniasis
- Lyme disease
- Malaria
- Rocky Mountain spotted fever
- Trypanosomiasis
- West Nile fever
- Zika

These products are ideal for the development and validation of novel diagnostic assays and therapeutic treatments.

Visit us online at [www.atcc.org/vectorborne](http://www.atcc.org/vectorborne) to learn more about ATCC products that support reproducible and reliable vector-borne disease research, including additional strains, relevant nucleic acids, and associated products.

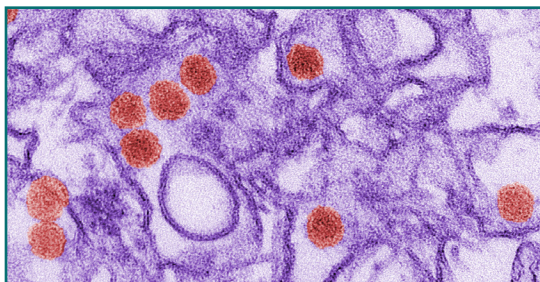
**Table 1: Mosquito-borne Diseases**

ATCC® No.	Organism	Strain Designation	Source Information
<a href="#">VR-1873™</a>	Bunyamwera virus	Original	<i>Aedes</i> spp. mosquitos caught in Bunyamwera, Uganda
<a href="#">VR-298™</a>	Cache Valley virus	Original	<i>Culiseta inornata</i> mosquitoes
<a href="#">VR-64™</a>	Chikungunya virus		Serum of patient, Tanganyika, East Africa, 1953
<a href="#">VR-1960™</a>	Chikungunya virus	37997	<i>Aedes furcifer</i> , Senegal
<a href="#">VR-1586™</a>	Dengue virus type 1	Strain: TH-S-man (TC adapted)	Pooled serum from 6 patients, Hawaii, 1944
<a href="#">VR-1856™</a>	Dengue virus type 1	Hawaii	Derived by adaptation of mouse-prepared product
<a href="#">VR-1584™</a>	Dengue virus type 2	New Guinea C	Serum of febrile patient, New Guinea, 1944
<a href="#">VR-1810™</a>	Dengue virus type 2	TH-36	Serum from patient diagnosed as Thai hemorrhagic fever, Thailand, 1958
<a href="#">VR-1490™</a>	Dengue virus type 4	H241 (TC adapted)	Clinical specimen - Human, Philippines, 1956
<a href="#">VR-1934™</a>	Inkoo virus	KN 3641	34 adult female <i>Aedes communis punctor</i> from Finland
<a href="#">VR-74™</a>	Japanese encephalitis virus		Spinal fluid from fatally infected child, Japan
<a href="#">VR-712™</a>	Jamestown Canyon virus	61V-2235	Animal tissue, Colorado
<a href="#">VR-1834™</a>	La Crosse virus		Brain tissue from a 4-year-old female, Wisconsin, 1960
<a href="#">VR-1863™</a>	Mayaro virus	TRVL 15537	
<a href="#">VR-1966™</a>	Mayaro virus	07-18066-99	Human serum, Peru
<a href="#">30090™</a>	<i>Plasmodium berghei</i>	NK65	Mosquito, Forest Gallery of Kisanga, Katanga, 1965
<a href="#">50175™</a>	<i>Plasmodium berghei</i>	NK65A	Derived from M. Yoeli strain NK65 by mosquito passage, Univ. Illinois, Urbana, pre-1978
<a href="#">30930™</a>	<i>Plasmodium falciparum</i>	FCR-1/FVO	Adult human male, Vietnam, 1966 (?)
<a href="#">30932™</a>	<i>Plasmodium falciparum</i>	FCR-3/FMG [ FCR-3/Gambia]]	Human clinical specimen, Fajara Gambia, 1976
<a href="#">30950™</a>	<i>Plasmodium falciparum</i>	Honduras-1/CDC	Human, Cholotec, Honduras, 1980
<a href="#">30993™</a>	<i>Plasmodium falciparum</i>	FCC-2/Hainan	Infected Human, Hainan Island, China, 1979
<a href="#">50028™</a>	<i>Plasmodium falciparum</i>	FCR-8/West African	Human, West Africa (?), 1978
<a href="#">50113™</a>	<i>Plasmodium falciparum</i>	HB-3	Clone of Honduras I/CDC, ATCC 30950, 1983
<a href="#">30075™</a>	<i>Plasmodium fragile</i>	Nilgiri	<i>Macaca radiata</i> , Nilgiri Hills, India 1961
<a href="#">30192™</a>	<i>Plasmodium knowlesi</i>	Malayan	<i>Macaca fascicularis</i> , West Malaysia, 1962
<a href="#">30141™</a>	<i>Plasmodium relictum</i>	1P and 1P1	Mourning dove, Nebraska, 1937
<a href="#">30138™</a>	<i>Plasmodium vivax</i>	Panama	Human, Panama, 1969
<a href="#">30151™</a>	<i>Plasmodium vivax</i>	South Vietnam	Human, South Vietnam

**Table 1: Mosquito-borne Diseases (continued)**

ATCC® No.	Organism	Strain Designation	Source Information
30152™	<i>Plasmodium vivax</i>	Sal 1	Human, Cangrejera, La Paz, El Salvador, 1970
30197™	<i>Plasmodium vivax</i>	SAL II	Human, Las Guarumas, La Paz, El Salvador, 1970
<a href="#">VR-3345™</a>	Ross River virus	T-48	<i>Aedes vigilax</i> , Australia
<a href="#">VR-1891™</a>	Usutu virus	SAAR 1776	Mosquito in Ndumu, Natal, South Africa, 1959
<a href="#">VR-1892™</a>	Usutu virus	ENT MP 1626	Mosquito in Zika forest, Entebbe area, Uganda, 1962
<a href="#">VR-1507™</a>	West Nile virus	385-99	Tissue, animal, Bronx New York, USA, 1999
<a href="#">VR-1510™</a>	West Nile virus	B 956	Human blood, Uganda, 1937
<a href="#">VR-1251™</a>	Western equine encephalitis virus	Fleming	
<a href="#">VR-84™</a>	Zika virus	MR 766 (Original)	Blood from experimental forest sentinel rhesus monkey, Uganda, 1947
<a href="#">VR-1838™</a>	Zika virus	MR 766	Blood from experimental forest sentinel rhesus monkey, Uganda, 1947
<a href="#">VR-1839™</a>	Zika virus	IBH 30656	Human blood in Ibadan, Nigeria, 1968
<a href="#">VR-1843™</a>	Zika virus	PRVABC59	Human serum specimen, Puerto Rico, December 2015
<a href="#">VR-1843HK™</a>	Heat-inactivated Zika virus	PRVABC59	Human serum specimen, Puerto Rico, December 2015
<a href="#">VR-1844™</a>	Zika virus	FLR	Human serum, Columbia, December 2015
<a href="#">VR-1845™</a>	Zika virus	P6-740	<i>Aedes aegypti</i> , Malaysia, July 1966
<a href="#">VR-1848™</a>	Zika virus	R103451	Placenta of a human isolated on January 6, 2016 infected from travel to Honduras in 2015
<a href="#">VR-1859™</a>	Zika virus	H/PAN/2015/CDC-259359	Panamanian isolate, 2015
<a href="#">VR-1860™</a>	Zika virus	H/PAN/2015/CDC-259364	Panamanian isolate, 2015
<a href="#">VR-1868™</a>	Zika virus	R116265	Human serum specimen, Mexico, June 2016

ATCC® No.	Product Description
<a href="#">VR-1864™</a>	Monoclonal Anti-Zika virus envelope (E) protein Clone ZV-2 (produced <i>in vitro</i> )
<a href="#">PRA-405D™</a>	Genomic DNA from <i>Plasmodium falciparum</i> strain 3D7 [ATCC® PRA-405™]
<a href="#">VR-3246SD™</a>	Quantitative Synthetic Chikungunya virus (CHIKV) RNA
<a href="#">VR-3228SD™</a>	Quantitative Synthetic Dengue virus type 1 RNA
<a href="#">VR-3229SD™</a>	Quantitative Synthetic Dengue virus type 2 RNA
<a href="#">VR-3230SD™</a>	Quantitative Synthetic Dengue virus type 3 RNA
<a href="#">VR-3231SD™</a>	Quantitative Synthetic Dengue virus type 4 RNA
<a href="#">VR-3239SD™</a>	Quantitative Synthetic Eastern equine encephalitis virus RNA
<a href="#">VR-3254SD™</a>	Quantitative Synthetic Rift Valley fever virus DNA
<a href="#">VR-3236SD™</a>	Quantitative Synthetic Saint Louis encephalitis virus RNA
<a href="#">VR-3198SD™</a>	Quantitative Synthetic West Nile Virus RNA
<a href="#">VR-3253SD™</a>	Quantitative Synthetic Yellow fever virus RNA
<a href="#">VR-1838DQ™</a>	Quantitative Genomic RNA from Zika virus strain MR 766 [ATCC® VR-1838™]
<a href="#">VR-1843DQ™</a>	Quantitative Genomic RNA from Zika virus strain PRVABC59 [ATCC® VR-1843™]
<a href="#">VR-3252SD™</a>	Quantitative Synthetic Zika virus (ZIKV) RNA
<a href="#">MP-22™</a>	Synthetic Dengue Viral RNA Panel



#### ZIKA VIRUS REFERENCE MATERIALS

Zika virus is a vector-borne pathogen that is spread among humans primarily through the bite of infected *Aedes* mosquitoes. With outbreaks occurring throughout regions in Central and South America, preventing the spread of this disease is important. Visit us online at [www.atcc.org/Zika](http://www.atcc.org/Zika) to browse ATCC's growing collection of Zika virus reference materials for vaccine efficacy testing and the development of detection assays.

**Table 2: Tick-borne Diseases**

ATCC® No.	Organism	Strain Designation	Isolation Source
<a href="#">VR-1436™</a>	<i>Anaplasma marginale</i>	South Idaho, USA (S64-Id2AM)	Whole blood from a naturally infected 13 year old Hereford cow from south-central Idaho herd, USA
<a href="#">VR-1437™</a>	<i>Anaplasma ovis</i>	Idaho, USA (S65-Id1AO)	Blood from <i>Ovis aries</i> (domestic sheep)
<a href="#">PRA-302™</a>	<i>Babesia duncani</i>	WA1	Human blood, Washington State, 1991
<a href="#">30221™</a>	<i>Babesia microti</i>	Gray	Human, Nantucket Island, MA, 1970
<a href="#">PRA-99™</a>	<i>Babesia microti</i>	Peabody mjr	Human blood, Nantucket Island, Massachusetts, USA, 1973
<a href="#">PRA-398™</a>	<i>Babesia microti</i>	GI (Ingram strain)	Blood, human babesiosis, Nantucket, MA, 1983
<a href="#">PRA-399™</a>	<i>Babesia microti</i>	Nan-Hs-2011 (N11-50)	Blood, human babesiosis, Nantucket, MA, 2010
<a href="#">PRA-400™</a>	<i>Babesia microti</i>	Naushon	Tick ( <i>Ixodes scapularis</i> ), Naushon Island, MA, 1986
<a href="#">PRA-401™</a>	<i>Babesia microti</i>	Lab Strain 1	Mouse blood, Greenwich, CT, 2004
<a href="#">51992™</a>	<i>Borrelia afzelii</i>	BO23	Human skin, Germany
<a href="#">BAA-2496™</a>	<i>Borrelia bavariensis</i>	PBi	Human cerebrospinal fluid
<a href="#">35210™</a>	<i>Borrelia burgdorferi</i>	B31	Tick, <i>Ixodes dammini</i> , New York
<a href="#">35211™</a>	<i>Borrelia burgdorferi</i>	IRS	Tick, <i>Ixodes ricinus</i> , Switzerland
<a href="#">51990™</a>	<i>Borrelia burgdorferi</i>	MM1	White footed mouse, <i>Peromyscus leucopus</i> , Minnesota, USA
<a href="#">53899™</a>	<i>Borrelia burgdorferi</i>	297	Cerebrospinal fluid
<a href="#">55131™</a>	<i>Borrelia burgdorferi</i>	HB19M	Human blood, Belgium
<a href="#">43381™</a>	<i>Borrelia coriaceae</i>	Co53 [CIP 104208T]	Soft tick, <i>Ornithodoros coriaceus</i> , California
<a href="#">51383™</a>	<i>Borrelia garinii</i>	CIP 103362	Tick, <i>Ixodes ricinus</i> , France
<a href="#">51991™</a>	<i>Borrelia garinii</i>	Fuji P1	<i>Ixodes persulatus</i> , Mt. Fuji, Japan
<a href="#">VR-1842™</a>	Bourbon virus	Original	Human male with recent tick exposure in Bourbon County, Kansas, 2014
<a href="#">VR-1933™</a>	Heartland virus	MO-4	Human leukocytes, Missouri, 2009
<a href="#">VR-1262™</a>	Powassan virus	Byers	Presumed from brain of human patient, Northern Ontario, Canada, 1958
<a href="#">VR-1593™</a>	<i>Rickettsia asiatica</i>	IO-1	Fukushima, Japan
<a href="#">VR-1814™</a>	<i>Rickettsia buchneri</i>	ISO-7	Ovarian tissue of female <i>Ixodes scapularis</i> , 2007
<a href="#">VR-610™</a>	<i>Rickettsia canadensis</i>	2678	<i>Haemaphysalis leporispalustris</i> (whole ticks)
<a href="#">VR-1444™</a>	<i>Rickettsia canadensis</i>	CA410	<i>Haemaphysalis leporispalustris</i> in California, USA
<a href="#">VR-613™</a>	<i>Rickettsia conorii</i>	7 [7]	<i>Ornithodoros moubata</i> ticks. Received by Rocky Mountain Lab in 1946
<a href="#">VR-1472™</a>	<i>Rickettsia honei</i>	RB	Human with fever and rash, Australia, originally isolated on Vero cells
<a href="#">VR-1363™</a>	<i>Rickettsia japonica</i>	YH	Blood of patient with oriental spotted fever, Japan
<a href="#">VR-1376™</a>	<i>Rickettsia massiliae</i>	Mtul [strain Mtu1]	Hemolymph of <i>Rhipicephalus turanicus</i> (Tick) from the South of France
<a href="#">VR-1928™</a>	<i>Rickettsia monacensis</i>	IrR/Munich	Tick ( <i>Ixodes ricinus</i> ), Munich, Germany, 1998
<a href="#">VR-1637™</a>	<i>Rickettsia parkeri</i>	Maculatum C	

ATCC® No.	Product Description
<a href="#">35210D-5™</a>	Genomic DNA from <i>Borrelia burgdorferi</i> Strain B31 [ATCC® 35210™]
<a href="#">30221D™</a>	Quantitated Genomic DNA from <i>Babesia microti</i> strain Gray [ATCC® 30221™]
<a href="#">35210DQ™</a>	Quantitative Genomic DNA from <i>Borrelia burgdorferi</i>

### LYME DISEASE RESEARCH TOOLS

Lyme disease, also known as Lyme borreliosis, is a tick-borne disease caused by *Borrelia* spirochetes. If left untreated, Lyme disease can result in arthritis, neurological symptoms, and heart problems. To help support research on this disease, ATCC offers *Borrelia* strains representing the three species most frequently associated with Lyme disease in the United States and Europe – *B. burgdorferi*, *B. afzelii*, and *B. garinii*. To view a full listing of these strains, visit ATCC online at [www.atcc.org/vectorborne](http://www.atcc.org/vectorborne).





**Table 3: Kissing Bug-borne Diseases**

ATCC® No.	Organism	Strain Designation	Isolation Source
<a href="#">30028™</a>	<i>Trypanosoma conorrhini</i>		Kissing bug, <i>Triatoma rubrofasciata</i> , Oahu Island, HI, 1947
<a href="#">30537™</a>	<i>Trypanosoma conorrhini</i>	Singapore	Kissing bug, <i>Triatoma rubrofasciata</i> , Singapore, Malaysia, 1969
<a href="#">30803™</a>	<i>Trypanosoma conorrhini</i>	77244	Adult kissing bug, <i>Triatoma rubrofasciata</i> , Manila, Philippines, 1977
<a href="#">30013™</a>	<i>Trypanosoma cruzi</i>	Culbertson	Human, Brazil, 1926
<a href="#">30160™</a>	<i>Trypanosoma cruzi</i>	Corpus Christi	10-month-old girl, Corpus Christi, TX, 1955
<a href="#">30161™</a>	<i>Trypanosoma cruzi</i>	Houston	6-month-old boy, Houston, TX, 1955
<a href="#">50791™</a>	<i>Trypanosoma cruzi</i>	M/HOM/AR/74/CA-I CL72	Clone 72 Derived from strain CA-I, originally isolated from a Human male with chronic myocarditis, San Luis Province, Argentina, 1974, Cloned by J. Dvorak, 1980
<a href="#">50792™</a>	<i>Trypanosoma cruzi</i>	M/HOM/BR/68/CAN III CL1	Human male, Brazil, 1968, Cloned by M. Miles, 1968
<a href="#">50795™</a>	<i>Trypanosoma cruzi</i>	M/HOM/AR/80/MIRANDA CL83	Human male, Argentina, 1980, Cloned by J. Dvorak, 1980
<a href="#">50820™</a>	<i>Trypanosoma cruzi</i>	ESMERALDO CL2	Clone 2 Derived from strain Esmeraldo which was originally isolated by xenodiagnosis from an acute case of Chagas' disease in a Human male from northeastern Brazil, 1977, Cloned by M. Miles
<a href="#">50823™</a>	<i>Trypanosoma cruzi</i>	SYLVIO-X10	Obtained from the fifth instar of <i>Rhodnius prolixus</i> used for xenodiagnosis of an acute case of sylvatic-Derived Chagas' disease, Para, Brazil, 1978
<a href="#">50829™</a>	<i>Trypanosoma cruzi</i>	TULAHUEN CL98	Clone 98 Derived from the Tulahuen strain, 1980
<a href="#">50830™</a>	<i>Trypanosoma cruzi</i>	WA250 CL1	Clone 1 Derived from strain WA-250 which was originally isolated from an opossum, <i>Didelphis albiventris</i> , 1977
<a href="#">50832™</a>	<i>Trypanosoma cruzi</i>	Y	Chagas' disease patient, Belo Horizonte, Brazil, 1953
<a href="#">50834™</a>	<i>Trypanosoma cruzi</i>	CA-I CL72 Lampit Resistant	Lampit (=Nifurtimox) resistant strain Derived from CA-I CL72 (=ATCC 50791)
<a href="#">50832GFP™</a>	<i>Trypanosoma cruzi</i>	Y GFP CL1	ATCC 50832 transfected with GFP
<a href="#">30282™</a>	<i>Trypanosoma cyclops</i>	7549	Monkey, <i>Macaca nemestrina</i> , West Malaysia, 1969
<a href="#">30032™</a>	<i>Trypanosoma rangeli</i>	Venezuelan E1 Tocuyo	Human, Venezuela, 1956

ATCC® No.	Product Description
<a href="#">30266D™</a>	Genomic DNA from <i>Trypanosoma cruzi</i> strain Tulahuen [ATCC® <a href="#">30266™</a> ]
<a href="#">50823D™</a>	Genomic DNA from <i>Trypanosoma cruzi</i> strain SYLVIO-X10 [ATCC® <a href="#">50823™</a> ]

**Table 4: Sand Fly-borne Diseases**

ATCC® No.	Organism	Strain Designation	Isolation Source
<a href="#">PRA-417™</a>	<i>Leishmania aethiopica</i>	MHOM/ET/72/L100 GFP	Transfected with GFP. Strain MHOM/ET/72/L100 was originally isolated from a human, Ethiopia, 1972
<a href="#">50135™</a>	<i>Leishmania braziliensis</i>	MHOM/BR/75/M2903	Human, Serra das Carajas, Para, Brazil, 1975
<a href="#">50133™</a>	<i>Leishmania chagasi</i>	MHOM/BR/74/PP75	Child, Ituacu, Bahia, Brazil, 1974
<a href="#">30030™</a>	<i>Leishmania donovani</i>	Khartoum	Human, Sudan, 1959
<a href="#">50212™</a>	<i>Leishmania donovani</i>	MHOM/IN/80/DD8	Bone marrow of 9-year-old Indian male, Bihar, India, 1980
<a href="#">PRA-413™</a>	<i>Leishmania donovani</i>	AG83 [MHOM/IN/1983/AG83]	Bone marrow aspirate, Kala-azar patient, India, 1983
<a href="#">50134™</a>	<i>Leishmania infantum</i>	MHOM/TN/80/IPT-1	Child, Monastir, Tunisia, 1980
<a href="#">50918™</a>	<i>Leishmania infantum</i>	LIVT-2	Popliteal lymph node of a foxhound, Virginia
<a href="#">30012™</a>	<i>Leishmania major</i>		Human, Teheran, Iran, 1949
<a href="#">50155™</a>	<i>Leishmania major</i>	MHOM/SU/73/5-ASKH	Human, Askhabad, Turkmenkaya, USSR, 1973
<a href="#">PRA-384™</a>	<i>Leishmania major</i>	MHOM/SN/74/SD	Cutaneous leishmaniasis, Senegal, 1973
<a href="#">30031™</a>	<i>Leishmania mexicana</i>	Guatemalan	Human, Guatemala, 1948
<a href="#">50156™</a>	<i>Leishmania mexicana</i>	MNYC/BZ/62/M379	<i>Nyctomys sumichrasti</i> , Cayo District, Belize, 1962.
<a href="#">50157™</a>	<i>Leishmania mexicana</i>	MHOM/BZ/82/BEL21	Human, Cayo District, Belize, 1982
<a href="#">PRA-416™</a>	<i>Leishmania mexicana</i>	MNYC/BZ/62/M379 GFP	Transfected with GFP. Strain MNYS/BZ/62/M379 was originally isolated from a Sumichrast's vesper rat, Cayo District, Belize, 1962
<a href="#">50158™</a>	<i>Leishmania panamensis</i>	MHOM/PA/71/LS94	
<a href="#">50129™</a>	<i>Leishmania tropica</i>	MHOM/SU/74/K27	Human, Baku, Azerbaidjanskaya, USSR, 1974
<a href="#">VR-1756™</a>	Sandfly fever Sicilian virus		

ATCC® No.	Product Description
<a href="#">35685D-5™</a>	Genomic DNA from <i>Bartonella bacilliformis</i> strain KC583 [ATCC® <a href="#">35685™</a> ]
<a href="#">30030D™</a>	Genomic DNA from <i>Leishmania donovani</i> strain Khartoum [ATCC® <a href="#">30030™</a> ]
<a href="#">50134D™</a>	Genomic DNA from <i>Leishmania infantum</i> strain MHOM/TN/80/IPT-1 [ATCC® <a href="#">50134™</a> ]
<a href="#">30012D™</a>	Genomic DNA from <i>Leishmania major</i> [ATCC® <a href="#">30012™</a> ]
<a href="#">50129D™</a>	Genomic DNA from <i>Leishmania tropica</i> MHOM/SU/74/K27 [ATCC® <a href="#">50129™</a> ]
<a href="#">MP-13™</a>	<i>Leishmania</i> Genomic DNA Panel

**Table 5: Tsetse Fly-borne Diseases**

ATCC® No.	Organism	Strain Designation	Isolation Source
<a href="#">PRA-380™</a>	<i>Trypanosoma brucei</i>	Lister 427 procyclic form	Unknown; possibly Derived from s427 strain, Uganda, 1960
<a href="#">30026™</a>	<i>Trypanosoma brucei gambiense</i>	Cheich	Human, Dakar, 1950
<a href="#">30024™</a>	<i>Trypanosoma brucei rhodesiense</i>	Wellcome CT	Human blood, Tinde, Tanganyika, 1934
<a href="#">PRA-406™</a>	<i>Trypanosoma brucei rhodesiense</i>	KETRI 243	Human clinical isolate, Busoga, Uganda, 1961
<a href="#">PRA-407™</a>	<i>Trypanosoma brucei rhodesiense</i>	KETRI 269	Human clinical isolate, Kitanga, Tanzania, 1960
<a href="#">PRA-408™</a>	<i>Trypanosoma brucei rhodesiense</i>	KETRI 2538	Human clinical isolate, Tete Province, Mozambique, 1980

ATCC® No.	Product Description
<a href="#">PRA-377D™</a>	Genomic DNA from <i>Trypanosoma brucei brucei</i> strain TREU 927/4 (GUTat 10.1) [ATCC® <a href="#">PRA-377™</a> ]

**Table 6: Flea-, Lice-, Gnat-, and Mite-borne Diseases**

ATCC® No.	Organism	Strain Designation	Isolation Source
<a href="#">51734™</a>	<i>Bartonella clarridgeiae</i>	[Houston-2 cat]	Animal blood, Houston Texas, USA
<a href="#">700095™</a>	<i>Bartonella clarridgeiae</i>	NCSU 94-F40	Animal blood, blood of cat implicated in a case of cat scratch disease, North Carolina, USA
<a href="#">49927™</a>	<i>Bartonella elizabethae</i>	F9251 [B91-002005]	Human blood, Brighton, Massachusetts, USA
<a href="#">49793™</a>	<i>Bartonella henselae</i>	87-66	Blood of a 31-year-old male with AIDS, Oklahoma City, OK, USA
<a href="#">49882™</a>	<i>Bartonella henselae</i>	Houston-1 [CIP 103737, G5436]	Human blood from an HIV-positive male, Houston Texas, USA
<a href="#">700693™</a>	<i>Bartonella koehlerae</i>	C-29	Animal blood, California, USA
<a href="#">51694™</a>	<i>Bartonella quintana</i>	90-268	Human blood, Oklahoma City, Oklahoma, USA
<a href="#">BAA-1498™</a>	<i>Bartonella rochalimae</i>	BMGH	43-year-old woman with splenomegaly, fever, anemia, and recent travel to Peru, September 5, 2003
<a href="#">BAA-1343™</a>	<i>Bartonella tamiae</i>	Th239	Febrile patient in Thailand, June, 2004
<a href="#">51672™</a>	<i>Bartonella vinsonii</i>	NCSU 93-CO1	Domestic dog with endocarditis, North Carolina
<a href="#">700727™</a>	<i>Bartonella vinsonii</i>	OK 94-513	Human blood, Jackson Wyoming, USA, 1994
<a href="#">BAA-1342™</a>	<i>Bartonella washoensis</i> subsp. <i>cynomysii</i>	CL8606co	Prairie dog
<a href="#">VR-1896™</a>	Epizootic hemorrhagic disease virus 1	OV202	Asymptomatic, farmed white-tailed deer, Gadsden County, Florida, USA. Isolated on September 22, 2015.
<a href="#">VR-1897™</a>	Epizootic hemorrhagic disease virus 2	OV215	Spleen of a farmed white-tailed deer, Gadsden County, Florida, USA, 2016
<a href="#">VR-609™</a>	<i>Orientia tsutsugamushi</i>	Scrub typhus strain Kato	Blood of patient in Niigata Pref., Japan
<a href="#">VR-148™</a>	<i>Rickettsia akari</i>	MK (Kaplan)	Blood from patient, New York City, 1946
<a href="#">30085™</a>	<i>Trypanosoma lewisi</i>	New Orleans-67	Rat, <i>Rattus norvegicus</i> , New Orleans, 1967
<a href="#">30182™</a>	<i>Trypanosoma musculi</i>	L (Lincicome)	Mouse, <i>Mus</i> sp., USA, (?)

ATCC® No.	Product Description
<a href="#">49882D-5™</a>	Genomic DNA from <i>Bartonella henselae</i> strain Houston-1 [ATCC® <a href="#">49882™</a> ]
<a href="#">BAA-1505D-5™</a>	Genomic DNA from <i>Yersinia pestis</i> strain TS
<a href="#">BAA-1506D-5™</a>	Genomic DNA from <i>Yersinia pestis</i> strain A12
<a href="#">BAA-1504D-5™</a>	Genomic DNA from <i>Yersinia pestis</i> strain Kim
<a href="#">30022D™</a>	Genomic DNA from <i>Trypanosoma lewisi</i> strain Lincicome [ATCC® <a href="#">30022™</a> ]


Some of the strains referenced in this guide are not available for international distribution. Visit us online at [www.atcc.org](http://www.atcc.org) to check the availability of specific strains in certain geographical areas. Though each of the following species has been shown to cause vector-borne disease in humans, ATCC has not tested individual strains for pathogenicity.

## REFERENCES


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- 2 Centers for Disease Control and Prevention. Parasites – American Trypanosomiasis (also known as Chagas Disease). [http://www.cdc.gov/parasites/chagas/gen\\_info/vectors/](http://www.cdc.gov/parasites/chagas/gen_info/vectors/), February, 2016.
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- 4 Centers for Disease Control and Prevention. Parasites – African Trypanosomiasis (also known as Sleeping Sickness). <http://www.cdc.gov/parasites/sleepingsickness/>, August 2012.




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