

Treponema pallidum (H9-2): sc-80973

BACKGROUND

Treponema pallidum is a Gram-negative spirochaete bacterium with periplasmic flagella. There are at least five subspecies of *T. pallidum*, including *T. pallidum pallidum* (the cause of syphilis), *T. pallidum pertenue* (the cause of yaws), *T. pallidum carateum* (the cause of pinta), *T. pallidum triocillium* (the cause of syphilis and pinta) and *T. pallidum endemicum* (the cause of bejel). *T. pallidum* is motile and is generally transmitted through close sexual contact, entering the host via breaches in squamous or columnar epithelium. The microbe can also be transferred to a fetus by transplacental passage during the later stages of pregnancy, causing congenital syphilis. *T. pallidum* has one of the shortest bacterial genomes at only 1.14 million base pairs and has limited metabolic capabilities, reflecting its adaptation through genome reduction to the complex environment of mammalian tissue.

REFERENCES

- Berthomieu, C., Dupeyrat, F., Fontecave, M., Vermiglio, A. and Nivière, V. 2002. Redox-dependent structural changes in the superoxide reductase from *Desulfoarcularus baarsii* and *Treponema pallidum*: a FTIR study. *Biochemistry* 41: 10360-10368.
- Cox, D.L., Sun, Y., Liu, H., Lehrer, R.I. and Shafer, W.M. 2004. Susceptibility of *Treponema pallidum* to host-derived antimicrobial peptides. *Peptides* 24: 1741-1746.
- Gutierrez-Zufiaurre, N., Sánchez-Hernández, J., Muñoz, S., Marín, R., Delgado, N., Sáenz, M.C., Muñoz-Bellido, J.L. and García-Rodríguez, J.A. 2004. Seroprevalence of antibodies against *Treponema pallidum*, *Toxoplasma gondii*, rubella virus, Hepatitis B and C virus, and HIV in pregnant women. *Enferm. Infecc. Microbiol. Clin.* 22: 512-516.
- Schmidt, B.L. 2004. Evaluation of a new particle gel immunoassay for determination against *Treponema pallidum*. *J. Clin. Microbiol.* 42: 2833-2835.
- Aktas, G., Young, H., Moyes, A. and Badur, S. 2005. Evaluation of the serodia *Treponema pallidum* particle agglutination, the Murex Syphilis ICE and the Enzywell TP tests for serodiagnosis of syphilis. *Int. J. STD AIDS* 16: 294-298.
- Cameron, C.E., Brouwer, N.L., Tisch, L.M. and Kuroiwa, J.M. 2005. Defining the interaction of the *Treponema pallidum* adhesin Tp0751 with laminin. *Infect. Immun.* 73: 7485-7494.
- Waugh, M. 2005. The centenary of *Treponema pallidum*: on the discovery of *Spirochaeta pallida*. *Skinmed* 4: 313-315.
- Morshed, M.G. and Jones, H.D. 2006. *Treponema pallidum* macrolide resistance in BC. *C.M.A.J.* 174: 349.
- Santos-Silva, T., Trincão, J., Carvalho, A.L., Bonifácio, C., Auchère, F., Moura, I., Moura, J.J. and Romão, M.J. 2006. Superoxide reductase from the syphilis and structure determination using soft X-rays. *Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun.* 61: 967-970.

SOURCE

Treponema pallidum (H9-2) is a mouse monoclonal antibody raised against *Treponema pallidum*, Nichols strain.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Treponema pallidum (H9-2) is recommended for detection of *Treponema pallidum* by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.