

# Streptococcus Group B (072): sc-58045

## BACKGROUND

The *Streptococcus* bacterium exists in more than 20 serologic groups, based on differences in group-specific polysaccharides located in the bacterial cell wall. The groups are designated by letters. *Streptococcus* Group B (GAB) is a Gram-positive, non-spore-forming, non-motile organism that retains the Group B Lancefield antigen. Group A bacterium are responsible for most cases of streptococcal illness. Other groups (B, C, D and G) may also cause infection. Found to inhabit a wide range of hosts, including humans, horses, porcines and bovines, *Streptococci* colonize the mucosal surfaces of the mouth, nose and pharynx. *Streptococcus* Group B causes a wide range of illness, from sepsis to life-threatening meningitis. Severe *Streptococcus* Group B infections may lead not only to shock and multisystem organ failure, but also to death. Early recognition and treatment with the antibiotics of choice, penicillin, erythromycin and clindamycin, is critical.

## REFERENCES

1. Amir, J., et al. 1994. Evaluation of a rapid test to detect *Streptococcus* Group A. *Isr. J. Med. Sci.* 30: 617-619.
2. Kreis, U.C., et al. 1995. Application of two-dimensional NMR spectroscopy and molecular dynamics simulations to the conformational analysis of oligosaccharides corresponding to the cell-wall polysaccharide of *Streptococcus* Group A. *Int. J. Biol. Macromol.* 17: 117-130.
3. Weimar, T., et al. 1995. Transferred nuclear Overhauser enhancement experiments show that the monoclonal antibody strep 9 selects a local minimum conformation of a *Streptococcus* Group A trisaccharide-hapten. *Biochemistry* 34: 13672-13681.
4. Stuike-Prill, R. and Pinto, B.M. 1995. Conformational analysis of oligosaccharides corresponding to the cell-wall polysaccharide of the *Streptococcus* Group A by Metropolis Monte Carlo simulations. *Carbohydr. Res.* 279: 59-73.
5. Auzanneau, F.I., et al. 1996. Efficient, convergent syntheses of oligosaccharide allyl glycosides corresponding to the *Strepto-coccus* Group A cell-wall polysaccharide. *Carbohydr. Res.* 291: 21-41.
6. Chelsom, J. and Halstensen, A. 2001. *Streptococcus* Group A infections of skin, soft tissue and blood. *Tidsskr. Nor. Laegeforen.* 121: 3310-3314.
7. Thinkhamrop, J., et al. 2003. Infections in international pregnancy study: performance of the optical immunoassay test for detection of Group B *Streptococcus*. *J. Clin. Microbiol.* 41: 5288-5290.
8. Davies, H.D., et al. 2004. Multicenter study of a rapid molecular-based assay for the diagnosis of Group B *Streptococcus* colonization in pregnant women. *Clin. Infect. Dis.* 39: 1129-1135.
9. Plumb, J. and Holwell, D. 2004. Group B strep: prevention is better than cure. *Pract. Midwife* 7: 17-21.

## SOURCE

Streptococcus Group B (072) is a mouse monoclonal antibody raised against inactivated intact *Streptococcus* Group B.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Streptococcus Group B (072) is recommended for detection of Group B of *Streptococcus* origin by immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with groups A, C, D, F and G.

## SELECT PRODUCT CITATIONS

1. Zhu, Q., et al. 2013. Amperometric immunosensor for simultaneous detection of three analytes in one interface using dual functionalized graphene sheets integrated with redox-probes as tracer matrixes. *Biosens. Bioelectron.* 43: 440-445.

## 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](http://www.scbt.com) for detailed protocols and support products.