SANTA CRUZ BIOTECHNOLOGY, INC.

PIB (bS-20): sc-17399

BACKGROUND

Neisseria meningitidis is one of the leading causes of bacterial meningitis. *Neisseria meningitidis* resides in its natural habitat within the nasopharyngeal tract of humans. The carbohydrate capsule of *N. meningitidis* determines its virulence and is targeted by the immune system. Approximately 12 strains of *N. meningitidis* exist and are characterized by the expression of one of the following polysaccharides on its capsule: A, B, C, 29-E, H, I, K, L, W-135, X, Y and Z. Serogroups A (PIA), B (PIB) and C cause 90% of meningococcal meningitis cases, while group B accounts for approximately half of these. The major outer membrane protein PorA of *Neisseria meningitidis* is the target for bactericidal serosubtyping antibodies and is currently considered a potential vaccine candidate against group B meningococcal disease. PorB proteins constitute the vast majority of channels in neisserial outer membranes.

REFERENCES

1. Tommassen, J., Vermeij, P., Struyve, M., Benz, R., and Poolman, J.T. 1990. Isolation of *Neisseria meningitidis* mutants deficient in class 1 (PorA) and class 3 (PorB) outer membrane proteins. Infect. Immun. 5: 1355-1359.
2. Minetti, C.A., Blake, M.S., and Remeta, D.P. 1998. Characterization of the structure, function, and conformational stability of PorB class 3 protein from *Neisseria meningitidis*. A porin with unusual physicochemical properties. J. Biol. Chem. 39: 25329-25338.
3. Tzeng, Y.L. and Stephens, D.S. 2000. Epidemiology and pathogenesis of *Neisseria meningitidis*. Microbes Infect. 6: 687-700.
4. Tondella, M.L., Popovic, T., Rosenstein, N.E., Lake, D.B., Carlone, G.M., Mayer, L.W., and Perkins, B.A. 2000. Distribution of *Neisseria meningitidis* serogroup B serosubtypes and serotypes circulating in the United States. The active bacterial core surveillance team. J. Clin. Microbiol. 9: 3323-3328.
5. Toropainen, M., Saarinen, L., van der Ley, P., Kuipers, B., and Kayhty, H. 2001. Murine monoclonal antibodies to PorA of *Neisseria meningitidis* show reduced protective activity *in vivo* against B:15:P1.7,16 subtype variants in an infant rat infection model. Microb. Pathog. 3: 139-148.

SOURCE

PIB (bS-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PIB of *N. meningitidis* origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17399 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

PIB (bS-20) is recommended for detection of PIB of *Neisseria meningitidis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

PROTOCOLS

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