



Shigella flexneri (306/305): sc-80941

BACKGROUND

Shigella refers to a genus of proteobacteria that are non-motile, rod-shaped, Gram-negative bacteria that are closely related to *E. coli* and exist as four species, one of which is *Shigella flexneri*. Comprising nearly one third of all of the *Shigella* bacteria in the United States, *Shigella flexneri* exists as an intestinal pathogen which invades the epithelia of the colon and causes extreme dysentery, with symptoms including abdominal cramps, fever and bloody stools. In developing countries, *Shigella flexneri* are commonly found in feces-contaminated food and water and, where treatment is limited, *Shigella flexneri* infection (referred to as Shigellosis) often leads to infant mortality. *Shigella flexneri* is a highly infectious and rapidly evolving microbe which exists in many drug-resistant strains, making Shigellosis hard to treat with traditional antibiotics.

REFERENCES

1. Paetzold, S., Lourido, S., Raupach, B. and Zychlinsky, A. 2007. *Shigella flexneri* phagosomal escape is independent of invasion. *Infect. Immun.* 75: 4826-4830.
2. Clark, C.S. and Maurelli, A.T. 2007. *Shigella flexneri* inhibits staurosporine-induced apoptosis in epithelial cells. *Infect. Immun.* 75: 2531-2539.
3. Boulette, M.L. and Payne, S.M. 2007. Anaerobic regulation of *Shigella flexneri* virulence: ArcA regulates Fur and iron acquisition genes. *J. Bacteriol.* 189: 6957-6967.
4. Yang, Y.G., Song, M.K., Park, S.J. and Kim, S.W. 2007. Direct detection of *Shigella flexneri* and *Salmonella typhimurium* in human feces by real-time PCR. *J. Microbiol. Biotechnol.* 17: 1616-1621.
5. Schroeder, G.N., Jann, N.J. and Hilbi, H. 2007. Intracellular type III secretion by cytoplasmic *Shigella flexneri* promotes caspase-1-dependent macrophage cell death. *Microbiology* 153: 2862-2876.
6. Nigro, G., Fazio, L.L., Martino, M.C., Rossi, G., Tattoli, I., Liparoti, V., De Castro, C., Molinaro, A., Philpott, D.J. and Bernardini, M.L. 2008. Muropeptide shedding modulates cell sensing of *Shigella flexneri*. *Cell. Microbiol.* 10: 682-695.
7. Runyen-Janecky, L., Daugherty, A., Lloyd, B., Wellington, C., Eskandarian, H. and Sagransky, M. 2008. Role and regulation of iron-sulfur cluster biosynthesis genes in *Shigella flexneri* virulence. *Infect. Immun.* 76: 1083-1092.
8. Goldman, S.R., Tu, Y. and Goldberg, M.B. 2008. Differential regulation by magnesium of the two MsbB paralogs of *Shigella flexneri*. *J. Bacteriol.* 190: 3526-3537.
9. Sperandio, B., Regnault, B., Guo, J., Zhang, Z., Stanley, S.L., Sansonetti, P.J. and Pédrón, T. 2008. Virulent *Shigella flexneri* subverts the host innate immune response through manipulation of antimicrobial peptide gene expression. *J. Exp. Med.* 205: 1121-1132.

SOURCE

Shigella flexneri (306/305) is a mouse monoclonal antibody raised against native *Shigella flexneri* serotype 6.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Shigella flexneri (306/305) is recommended for detection of *Shigella flexneri* by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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 or our catalog for detailed protocols and support products.