



# Salmonella typhimurium (IFR0402): sc-58024

## BACKGROUND

*Salmonella typhimurium*, a Gram-negative, facultatively anaerobic, flagellated member of the Enterobacteria family, is a potent food-borne pathogen. It is the leading cause of a form of human gastroenteritis commonly referred to as Salmonellosis. Salmonellosis causes diarrhea, fever and abdominal cramps 12 to 72 hours after infection and may last for up to seven days. *Salmonella typhimurium* is readily transmitted through the feces of people or animals. Lipopolysaccharide (LPS) is the result of the joining of a lipid and a polysaccharide (carbohydrate) by a covalent bond. LPS is a major component of the cell membrane of all Gram-negative bacteria, and it contributes greatly to the structural integrity of the bacteria, protecting the membrane from certain types of chemical attacks. LPS is an endotoxin, and induces a strong response from normal animal immune systems, causing many of the characteristic symptoms of the infection.

## REFERENCES

1. Cash, M.T., Miles, E.W. and Phillips, R.S. 2004. The reaction of indole with the aminoacrylate intermediate of *Salmonella typhimurium* tryptophan synthase: observation of a primary kinetic isotope effect with 3-[[2H]indole. Arch. Biochem. Biophys. 432: 233-243.
2. Komitopoulou, E., Bainton, N.J. and Adams, M.R. 2004. Premature *Salmonella typhimurium* growth inhibition in competition with other Gram-negative organisms is redox potential regulated via RpoS induction. J. Appl. Microbiol. 97: 964-972.
3. Lyons, S., Wang, L., Casanova, J.E., Sitaraman, S.V., Merlin, D. and Gewirtz, A.T. 2004. *Salmonella typhimurium* transcytoses flagellin via an SPI2-mediated vesicular transport pathway. J. Cell Sci. 117: 5771-5780.
4. Carnevalini, M., Faccenna, F., Gabrielli, R., Irace, L., Dell'isola, S., d'Ettorre, G., Vullo, V. and Mastroianni, C.M. 2005. Abdominal aortic mycotic aneurysm, psoas abscess, and aorto-bisiliac graft infection due to *Salmonella typhimurium*. J. Infect. Chemother. 11: 297-299.
5. Oscar, T.P. 2005. Development and validation of primary, secondary, and tertiary models for growth of *Salmonella typhimurium* on sterile chicken. J. Food Prot. 68: 2606-2613.
6. Cutler, S.A., Rasmussen, M.A., Hensley, M.J., Wilhelms, K.W., Griffith, R.W. and Scanes, C.G. 2006. Effects of *Lactobacilli* and lactose on *Salmonella typhimurium* colon and microbial fermentation in the crop of the young turkey. Br. Poult. Sci. 46: 708-716.
7. Na, H.S., Kim, H.J., Lee, H.C., Hong, Y., Rhee, J.H. and Choy, H.E. 2006. Immune response induced by *Salmonella typhimurium* defective in ppGpp synthesis. Vaccine 24: 2027-2034.
8. Prescott, J.F. 2006. *Salmonella typhimurium* veterinary clinic outbreak. Emerg. Infect. Dis. 11: 1989.

## SOURCE

Salmonella typhimurium (IFR0402) is a mouse monoclonal antibody raised against a flageller preparation of *Salmonella typhimurium*.

## PRODUCT

Each vial contains 500 µl culture supernatant containing IgM with < 0.1% sodium azide.

## APPLICATIONS

Salmonella typhimurium (IFR0402) is recommended for detection of *Salmonella typhimurium* by flow cytometry [1 µg (approximately 10-20 µl) per 1 x 10<sup>6</sup> cells].

## STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## 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) or our catalog for detailed protocols and support products.