

# Salmonella LPS (6351): sc-58191

## BACKGROUND

*Salmonella* bacteria are the most frequently reported cause of foodborne illness. *Salmonella* is a genus composed of rod-shaped, highly mobile Gram-negative bacterium. This non spore-forming genus includes over 2,000 serotypes of *Salmonella* bacteria, organized into 5 different serogroups, *Salmonella* A,B,C,D and E. A widespread occurrence of *Salmonella* in animals, chiefly in swine and poultry, and in environmental sources, including water, soil, insects, kitchen surfaces, factory surfaces, raw meats and animal feces, causes Salmonellosis. Several species are mildly pathogenic, producing slight gastroenteritis, while others generate a case of serious and often fatal food poisoning. Lipopolysaccharide (LPS) consists of a lipid and a polysaccharide (carbohydrate) joined 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 composed of an endotoxic inner Lipid A, an O polysaccharide and an R core. All *Salmonella* species retain a LPS endotoxin representative of most Gram-negative bacteria.

## REFERENCES

- Goh, Y.L., Yasin, R., Puthucheary, S.D., Koh, Y.T., Lim, V.K., Taib, Z. and Thong, K.L. 2003. DNA fingerprinting of human isolates of *Salmonella enterica* serotype Par B in Malaysia. *J. Appl. Microbiol.* 95: 1134-1142.
- Kudalkar, D., Thermidor, M. and Cunha, B.A. 2004. *Salmonella paratyphi* A enteric fever mimicking viral meningitis. *Heart Lung* 33: 414-416.
- Van Immerseel, F., Meulemans, L., De Buck, J., Pasmans, F., Velge, P., Bottreau, E., Haesebrouck, F. and Ducatelle, R. 2004. Bacteria-host interactions of *Salmonella paratyphi* B dT+ in poultry. *Epidemiol. Infect.* 132: 239-243.
- Adachi, T., Sagara, H., Hirose, K. and Watanabe, H. 2005. Fluoroquinolone-resistant *Salmonella paratyphi* A. *Emerg. Infect. Dis.* 11: 172-174.
- Erdem, B., Ercis, S., Hascelik, G., Gur, D., Gedikoglu, S., Aysev, A.D., Sumerkan, B., Tatman-Otkun, M. and Tuncer, I. 2005. Antimicrobial resistance patterns and serotype distribution among *Salmonella enterica* strains in Turkey, 2000-2002. *Eur. J. Clin. Microbiol. Infect. Dis.* 24: 220-225.
- Itah, A.Y. and Uweh, E.E. 2005. Bacteria isolated from blood, stool and urine of typhoid patients in a developing country. *Southeast Asian J. Trop. Med. Public Health* 36: 673-677.
- Khan, F.Y., Kamha, A.A. and Alomary, I.Y. 2006. Fulminant hepatic failure caused by *Salmonella paratyphi* A infection. *World J. Gastroenterol.* 12: 5253-5255.
- Mao, Y.F., Lin, X.J., Li, J., Ruan, P., Zhou, X.H. and Yan, J. 2006. Construction of prokaryotic expression system of *Salmonella paratyphi* A spaO gene and immunogenicity and immunoprotection of the expressed product. *Zhonghua Liu Xing Bing Xue Za Zhi* 27: 347-350.
- Morgan, J.S. and Laber, D.A. 2006. Ceftriaxone-resistant *Salmonella septicemia* and osteomyelitis in sickle cell disease adults. *South. Med. J.* 99: 625-627.

## SOURCE

Salmonella LPS (6351) is a mouse monoclonal antibody raised against LPS of *Salmonella* origin.

## 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

Salmonella LPS (6351) is recommended for detection of *Salmonella* Serogroups A, B, C, D, and E of *Salmonellae sp.* origin 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](http://www.scbt.com) for detailed protocols and support products.