



## Klebsiella (73/28): sc-80859

### BACKGROUND

*Klebsiella* represents a genus of bacteria within the family *Enterobacteriaceae*. *Klebsiella* bacteria are Gram-negative, non-motile, encapsulated, lactose-fermenting, facultatively anaerobic, rod-shaped microbes found in the normal flora of the mouth, skin and GI tract. Members of the *Klebsiella* genus usually express two types of antigens on their cell surface. The first is O antigen, a lipopolysaccharide that contains 77 varieties. The second is the K agent, a capsular polysaccharide with nine varieties. Both O antigen and K agent contribute to pathogenicity of *Klebsiella* and form the basis for subtyping in this genus. *Klebsiella* possesses a chromosomal class A  $\beta$ -lactamase, giving it inherent resistance to ampicillin, though it is generally sensitive to aminoglycosides and cephalosporins. *Klebsiella* contains seven species, including *K. ozaenae*, *K. rhinoscleromatis* and *K. pneumoniae*, which can cause bacterial pneumonia, urinary tract and wound infections.

### REFERENCES

1. Faogali, J.L. 1975. *Klebsiella* urinary tract infection. N.Z. Med. J. 81: 286-288.
2. Camprubí, S., Merino, S., Guillot, J.F. and Tomás, J.M. 1993. The role of the O-antigen lipopolysaccharide on the colonization *in vivo* of the germ-free chicken gut by *Klebsiella pneumoniae*. Microb. Pathog. 14: 433-440.
3. Trautmann, M., Ruhnke, M., Rukavina, T., Held, T.K., Cross, A.S., Marre, R. and Whitfield, C. 1997. O-antigen seroepidemiology of *Klebsiella* clinical isolates and for immunoprophylaxis of *Klebsiella* infections. Clin. Diag. Lab. Immunol. 4: 550-555.
4. Thadepalli, H., Reddy, U., Chuah, S.K., Hanna, N., Rana, G. and Gollapudi, S. 2000. Evaluation of trovafloxacin in the treatment of *Klebsiella pneumoniae* lung infection in tumour-bearing mice. J. Antimicrob. Chemother. 45: 69-75.
5. Trautmann, M., Held, T.K. and Cross, A.S. 2004. O antigen seroepidemiology of *Klebsiella* clinical isolates and implications for immunoprophylaxis of *Klebsiella* infections. Vaccine 22: 818-821.
6. Beaugerie, L., Metz, M., Barbut, F., Bellaiche, G., Bouhnik, Y., Raskine, L., Nicolas, J.C., Chatelet, F.P., Lehn, N., Petit, J.C. and Infectious Colitis Study Group. 2004. *Klebsiella oxytoca* as an agent of antibiotic-associated hemorrhagic colitis. Clin. Gastroenterol. Hepatol. 1: 370-376.
7. Kizirgil, A., Demirdag, K., Ozden, M., Bulut, Y., Yakupogullari, Y. and Toraman, Z.A. 2005. *In vitro* activity of three different antimicrobial agents against ESBL producing *Escherichia coli* and *Klebsiella pneumoniae* blood isolates. Microbiol. Res. 160: 135-140.
8. Ozgunes, I., Erben, N., Kiremitci, A., Kartal, E.D., Durmaz, G., Colak, H., Usluer, G. and Colak, E. 2006. The prevalence of extended-spectrum  $\beta$  lactamase-producing *Escherichia coli* and *Klebsiella pneumoniae* in clinical isolates and risk factors. Saudi Med. J. 27: 608-612.

### STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### SOURCE

*Klebsiella* (73/28) is a mouse monoclonal antibody raised against active *K. aerogenes*.

### PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

### APPLICATIONS

*Klebsiella* (73/28) is recommended for detection of *Klebsiella* by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### 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.