## SANTA CRUZ BIOTECHNOLOGY, INC.

# Mycobacterium avium (101): sc-57923



#### BACKGROUND

Mycobacterium is a genus of Actinobacteria, which retains its own family, the Mycobacteriaceae, which includes many pathogens known to cause serious diseases in mammals. All mycobacteria demonstrate a diagnostic cell wall that is thicker than most bacteria. The waxy, hydrophobic mycobacterial wall incorporates mycolic acids/mycolates, contributing a substantial amount of hardiness to this genus and making mycobacterial infections notoriously difficult to treat. Naturally resistant to a variety of antibiotics that utilize the destruction of cell walls, mycobacterial cell walls promote survival during long exposure to detergents, alkalis, acids and oxidative bursts, as well as lysis by complement and antibiotics. Mycobacterium avium does not grow well in vitro, and may also modulate extremely long reproductive cycles, making laboratory culture and research a slow process. It can induce tuberculosis in birds and pulmonary infections in humans. It can also be transmitted to immunocompromised humans such as AIDS patients, where it can cause disseminated Mycobacterium avium complex. Mycobacterium avium are common in the environment and cause infection when inhaled or swallowed.

#### REFERENCES

- 1. Polymeros, D., Bogdanos, D.P., Day, R., Arioli, D., Vergani, D. and Forbes, A. 2006. Does cross-reactivity between Mycobacterium avium paratuberculosis and human intestinal antigens characterize Crohn's disease? Gastroenter-ology 131: 85-96.
- 2. Vuppalapati, G., Turner, A., La Rusca, I. and Schonauer, F. 2006. Mycobacterium avium infection involving skin and soft tissue of the hand treated by radical debridement and reconstruction in addition to multidrug chemotherapy. J. Hand Surg. 31: 693-694.
- 3. Metzger-Boddien, C., Khaschabi, D., Schönbauer, M., Boddien, S., Kehle, J., Schlederer, T. 2006. Automated high-throughput immunomagnetic separation-PCR for detection of Mycobacterium avium subsp. paratuberculosis in bovine milk. Int. J. Food Microbiol. 110: 201-208.
- 4. Goeminne, H., Peleman, R.A., Brusselle, G. and Tournoy, K.G. 2006. Mycobacterium avium complex with a distinct clinical and iconographic presentation: the Lady Windermere syndrome. Acta Clin. Belg. 61: 79-81.
- 5. Marri, P.R., Bannantine, J.P., Paustian, M.L. and Golding, G.B. 2006. Lateral gene transfer in Mycobacterium avium subspecies paratuberculosis. Can. J. Microbiol. 52: 560-569.
- 6. Nishigaki, Y., Fujiuchi, S., Fujita, Y., Yamazaki, Y., Sato, M., Yamamoto, Y., Takeda, A., Fujikane, T., Shimizu, T. and Kikuchi, K. 2006. Increased serum level of vascular endothelial growth factor in Mycobacterium avium complex infection. Respirology 11: 407-413.
- 7. Steed, K.A. and Falkinham, J.O. 2006. Effect of growth in biofilms on chlorine susceptibility of Mycobacterium avium and Mycobacterium intracellulare. Appl. Environ. Microbiol. 72: 4007-4011.
- 8. Watanabe, M., Hasegawa, N., Ishizaka, A., Asakura, K., Izumi, Y., Eguchi, K., Kawamura, M., Horinouchi, H. and Kobayashi, K. 2006. Early pulmonary resection for Mycobacterium avium complex lung disease treated with macrolides and guinolones. Ann. Thorac. Surg. 81: 2026-2030.

#### SOURCE

Mycobacterium avium (101) is a mouse monoclonal antibody raised against Mycobacterium avium.

#### PRODUCT

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

### **APPLICATIONS**

Mycobacterium avium (101) is recommended for detection of Mycobacterium avium 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 for detailed protocols and support products.