SANTA CRUZ BIOTECHNOLOGY, INC.

Mycobacterium avium (103): sc-66066

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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., et al. 2006. Does cross-reactivity between *Mycobacterium avium paratuberculosis* and human intestinal antigens characterize Crohn's disease? Gastroenterology 131: 85-96.
2. Vuppalapati, G., et al. 2006. *Mycobacterium avium* infection involving skin and soft tissue of the hand treated by radical debridement and reconstruction in addition to multidrug chemo-therapy. J. Hand Surg. 31: 693-694.
3. Metzger-Boddien, C., et al. 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., et al. 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., et al. 2006. Lateral gene transfer in *Mycobacterium avium* subspecies *paratuberculosis.* Can. J. Microbiol. 52: 560-569.
6. Nishigaki, Y., et al. 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. Pickup, R.W., et al. 2006. *Mycobacterium avium* subsp. *paratuberculosis* in lake catchments, in river water abstracted for domestic use, and in effluent from domestic sewage treatment works: diverse opportunities for environmental cycling and human exposure. Appl. Environ. Microbiol. 72: 4067-4077.
9. Watanabe, M., et al. 2006. Early pulmonary resection for *Mycobacterium avium* complex lung disease treated with macrolides and quinolones. Ann. Thorac. Surg. 81: 2026-2030.

SOURCE

Mycobacterium avium (103) is a mouse monoclonal antibody raised against *Mycobacterium avium* cell extract.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Mycobacterium avium (103) is recommended for detection of *Mycobacterium avium* by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SELECT PRODUCT CITATIONS

1. Liu, A.M., et al. 2010. Umbilical cord-derived mesenchymal stem cells with forced expression of hepatocyte growth factor enhance remyelination and functional recovery in a rat intracerebral hemorrhage model. Neurosurgery 67: 357-365.

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.